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ALPHABETS

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In conjunction with Walter Crane.

ALPHABETS OLD AND NEW

FOR THE USE OF CRAFTSMEN,
WITH AN INTRODUCTORY ESSAY
ON 'ART IN THE ALPHABET'

BY

LEWIS F. DAY

AUTHOR OF 'PATTERN DESIGN,'
'ORNAMENT AND ITS APPLICATION,'
'NATURE AND ORNAMENT,' ETC

THIRD EDITION, REVISED & ENLARGED

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PREFACE TO THE THIRD EDITION.

A BOOK of alphabets like this, for the use of artists and others who have occasion either to work in the manner of some given period or to design lettering of their own, needs scarcely any introductory essay.

I have attempted, however, in "Art in the Alphabet," to give, as simply as possible, that amount of information about the Alphabet and its evolution without which it is not safe for the designer to depart from too familiar forms.

Fuller particulars of the various alphabets than it was possible to give in this connected and condensed account of the alphabet will be found in the Descriptive List of Illustrations.

My own ideas on lettering design, enunciated by the way, are the more frankly expressed because it must be understood that they are only personal opinions which the reader will take for what they are worth.

In the alphabets themselves the spirit of the old lettering is faithfully kept, though I have not scrupled to supply missing letters. Scholars will

of course object to this ; but the book is not for them ; it is for working artists, who will be glad, I know, to have twenty-six letters to the alphabet.

A feature in the book is the quantity of illustrations showing the difference of makes in the character of the lettering, whether it is in wood or stone, in stuff or leather, in mosaic or stained glass ; whether, for example in metal, it is cut in, grounded out, beaten up, onlaid or engraved ; or whether the writing tool chances to be a chisel or a gouge, a needle or a brush, a stylus or a pen—and even what sort of pen it is.

All this is much more fully illustrated than it was in earlier editions ; and, in particular, the penmanship of the 17th century for which I have been able to draw upon a unique collection of the famous “ Writing Books ” in the possession of the publisher.

“ Alphabets Old and New ” concerns itself only with letters and the corresponding numerals. The decorative use of Lettering in Ornament is the subject of a separate volume.

LEWIS F. DAY.

15, TAVITON STREET,

March 1, 1910.

NOTE.

Thanks are due to Mr. George Clulow for the use of his valuable collection of old Writing Books, etc.; to Messrs. Matthew Bell & Co., W. J. Pearce, J. Walter West, C. Griffin & Co., Ltd., J. Vinycomb, Herr von Larisch, Brindley & Weatherley, Frau Bassermann Nachfolger, Munich, Martin Gerlach, Ferd. Schenk, and others, who have kindly permitted the reproduction here of alphabets drawn or copyrighted by them; and to the artists who have designed alphabets especially for this book.

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- 77 and 78. GOTHIC INSCRIPTIONS—From Nordhausen. Cut in brass. 1395—1397.
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106. ITALIAN INITIALS—Broad penwork of late Gothic character. Neither so rigid nor so florid as the typical German writing of the period. 15th and 16th centuries.
107. ITALIAN MINUSCULE—By Vicentino. From the original Writing Book. The penmanship is florid, but not quite in the way of German flourish. 1523. (Compare with German, 105.)
108. ITALIAN MINUSCULE—From the original Writing Book, by Ludovico Vicentino. A good specimen of the so-called "ribbon letter." When once the carver or engraver began to consider the broad strokes of his "black letter" as straps, and to suggest by ever so slight a cut that they were turned over at the ends (compare 80), it was inevitable that he should arrive eventually at this kind of thing. Florid indeed, but fanciful. Any form of letter might be so treated, but the treatment is peculiarly suited to the black-letter form. 1523.
109. ITALIAN CAPITALS—From the original Writing Book by Lud. Vicentino. The outline of the letters deviates into inter-

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lacings. But the knotting occupies approximately the natural thickness of the letter; and, though the outline is thus broken, the form of the letter is sufficiently preserved. This splitting of the letter, as it were, into ribbons in its thickest parts was not uncommon in 16th-century initials. It is obvious that any form of letter might be elaborated after this fashion. 1523.

- 110. ITALIAN GOTHIC CAPITALS—After Ludovico Curione. Pen-work. 16th century. (Compare with German, 105.)
- 111. SPANISH GOTHIC CAPITALS—From the Writing Book by Juan Yciar. The forms of the K and Y are unusual. First half of the 16th century.
- 112. ROMAN LETTERS cut in marble—Florentine. 15th century.
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- 114. ELIZABETHAN LETTERING—From an inscription incised in wood at North Walsham, Norfolk. (Compare 115—133.)
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- 116. ITALIAN GOTHIC MINUSCULE—From the original Writing Book by Palatino. Straight-lined with elaborately flourishing extremities. It suggests the engraver. 1546.
- 117. ITALIAN MINUSCULE—From the original Writing Book by Vespasiano. These letters are exceedingly well shaped. Observe the second variety of the letter *v*. 1556.
- 118. TYPICALLY ITALIAN RENAISSANCE—"Roman" capitals, by Serlio. 16th century. (Compare with Roman, 56.)
- 119. GERMAN CAPITALS—By Daniel Hopfer. Renaissance or "Roman" in character, but not without traces of lingering Gothic influence. 1549.
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126. ROMAN CAPITALS—From the lace-book of Giovanni Ostaus, adapted to working on a square mesh. Characteristic of the method of execution, and not of any period. 1591. (Compare 200.)
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- 130 and 131. MAJUSCULE AND MINUSCULE alphabets, from a rare Writing Book of the 17th century.
132. ITALICS—The sloping form came, of course, from the use of the pen, but it was largely adopted by the masons of the 17th and 18th centuries, who copied even the most elaborate flourishes of the writing-master. 17th century. (Compare 134 *et seq.*)

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133. From inscriptions rather rudely carved upon a beam of elm now in the Victoria and Albert Museum. The incised line on the face of the letters occurs only in parts. Letters G, J, K, Q, X, Z were missing. English, dated 1638. (Compare 114 and 115.)
134. PEN-WRITTEN CAPITALS—From "The Pen's Transcendency," a Writing Book by E. Cocker, 1660. Cocker was so emphatically *the* English writing-master of his day as to have given rise to the phrase, "According to Cocker." (Compare this and the following with the stone cut letters, 142, 143, inspired by them.)
135. PEN-WRITTEN MINUSCULES—From "The Pen's Transcendency," by E. Cocker. 1660.
136. PEN-WRITTEN MINUSCULES—By Lesgret, a writing-master of Paris. 1736.
137. ALPHABETS AND INSCRIPTION—From "Magnum in Parvo," a Writing Book by E. Cocker.
138. ALPHABETS AND INSCRIPTION—From the "Guide to Penmanship," by E. Cocker. 1673.
139. PEN-WRITTEN CAPITALS—From a "Guide to Penmanship," by E. Cocker. 1673.
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146. MINUSCULES—From a Writing Book by M. S. Andrade. Portuguese. 1721.

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150. GERMAN LETTERING—From inscriptions at Osnabrück. Halting between majuscule and minuscule forms. Incised in stone. 1742-56.
151. FRENCH—A more reticent example of the period of Louis XV., by E. Guichard, in which it would, perhaps, be more accurate to say that the shape of the letter is broken up into ornament. 18th century.
152. FRENCH—Of the period of Louis XV., by Laurent. This is a case in which Rococo scrollwork and flowers are compelled to take the form of lettering, more or less—in this case the form of current writing. 18th century.
153. MODERN MINUSCULE—From an inscription etched on lithographic stone by John Tischberger, who was a writing-master at Nuremberg, 1765-70. The touch is neither that of the pen, nor of the brush, nor of the chisel.
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155. ENGLISH—Roman capitals and numerals, by William Caslon. Printed type, "old face." 18th century.
156. ENGLISH—Roman lower case, and italic upper and lower case, by W. Caslon. Printed type, "old face," 18th century.

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157. ENGLISH COURTHAND—From Andrew Wright's "Court-hand Restored," a book designed to assist the student in deciphering old deeds, etc. This book was published in 1815; but the character is at least as early as the 14th century, and may have been in use a century or more before that.
158. HEBREW ALPHABET.
159. HEBREW ALPHABET—Ornamental version. From Silvestre's "Paleographie." Almost identical with a 16th-century alphabet by Palatino.
160. MODERN GOTHIC CAPITALS, executed with a quill—The forms designed for execution with two strokes of the pen. Walter Crane.
161. MODERN MAJUSCULE AND MINUSCULE, directly written with the simplest stroke of a quill pen. Walter Crane.
162. MODERN GERMAN GOTHIC CAPITALS (Facturschrift)—Penwork. Otto Hupp. In the later German character penmanship ran wild. The lettering is often quite inextricable from the tangle of flourishes in which it is involved. Herr Hupp has avoided the utmost extravagance of the national style. To anyone acquainted with the German character, it is clear enough which of his sweeping strokes mean business, and which are merely subsidiary penmanship. The happy mean is, of course, to make ornament against which the letter tells plainly enough. That is attempted also in 221.
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164. MODERN PEN-DRAWN ALPHABET—By Otto Hupp, from Rudolf von Larisch's "Beispiele Künstlerischer Schriften."
165. MODERN VARIATION OF MINUSCULE GOTHIC—Intentionally rather fantastic, but not intentionally departing so far from familiar forms as to be difficult to read. L. F. D.
166. PEN-WRITTEN CAPITALS. L. F. D.

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168. MODERN ROMAN ITALIC CAPITALS, with something of a cursive character. L. F. D.
169. MODERN MAJUSCULE AND MINUSCULE lettering and numerals, with more curvature in the strokes than in the typical Roman character. J. W. Weekes.
170. MODERN PEN ALPHABET—By Bailey Scott Murphy, architect. Described by him as "freehand without the use of geometrical instruments."
- 171 and 172. WRITTEN LETTERING—By R. Anning Bell. "The differing shapes of the same letters in the smaller alphabet depend of course on the letters on either side." Had they been for type the artist would have made them more exact; but in drawn letters he thinks the evidence of the hand not unpleasant.
- 173 and 174. MODERN ARCHITECT'S ALPHABETS, majuscule and minuscule, with numerals and wording, to show the adjustment of each letter to letters adjoining. Designed to be characteristically penwork. Professor A. Beresford Pite, architect.
175. MODERN PEN LETTERS—By B. Waldram.
176. PEN-WRITTEN ALPHABETS AND NUMERALS. Percy J. Smith.
177. MODERN PEN-DRAWN ROMAN CAPITALS—By B. Waldram.
178. MODERN FRENCH "ROMAN" TYPE founded upon Serlio. (Compare 118.)
179. MODERN PEN-WRITTEN UNCIALS—By B. Waldram.
180. MODERN PEN-WRITTEN MINUSCULE. L. F. D.
181. MODERN ROMAN MAJUSCULE AND MINUSCULE. Penwork. Roland W. Paul, architect.
182. MODERN RATHER GOTHIC CAPITALS—Penwork. R. K. Cowtan.
183. MODERN MAJUSCULE AND MINUSCULE, approaching to running hand. R. K. Cowtan.
184. MODERN MAJUSCULE AND MINUSCULE—R. K. Cowtan.

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185. MODERN ITALIC CAPITALS—By Walter West. Much of the delicacy of Mr. West's beautiful penmanship is unfortunately lost in the process reproduction.
186. MODERN MINUSCULE ALPHABET—By Selwyn Image. An example of his ordinary penmanship, given as an example of a modern handwriting which may fairly be described as calligraphy.
187. MODERN CAPITALS adapted for engraving. L. F. D.
188. MODERN CAPITALS adapted for execution with single strokes of the pen. L. F. D.
189. MODERN FRENCH TYPE—Designed by Grasset, and used in France for book-work. An English version is in use for advertisements, etc.
190. MODERN VERSION OF EARLY GOTHIC CAPITALS—Adapted for engraving on metal. L. F. D.
191. MODERN CAPITALS—Twisted, blunt brushwork. Could easily be worked in "couched" cord. L. F. D. (Compare 198.)
192. MODERN VARIATION UPON ROMAN CAPITALS—Blunt brushwork. L. F. D. (Compare 201.)
193. MODERN VERSION OF EARLY SPANISH LETTERS—Adapted for cutting with a single plough of the graver. L. F. D.
194. MODERN CAPITALS, shaped with deliberate view to direct and easy expression with the chisel, the cuneiform character of the Assyrian inscriptions being taken as a suggestion that a wedge-shaped incision was about the easiest thing to cut in stone. (See p. 28.) Alfred Carpenter and L. F. D.
195. MODERN CAPITALS, designed for wood-carving, the ornament typical of the Elizabethan, Jacobean, and Henri II. periods being taken as evidence of the ease with which strap-like forms may be cut with a gouge. L. F. D.
196. MODERN ALPHABET—Designed for engraving on silver. The black stands for the surface of the plate. It is as if this were a rubbing from the engraving. L. F. D.

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197. MODERN GOTHIC RIBBAND ALPHABET—Engraved on brass, the ground cross-hatched. Adapted from Otto Hupp.
198. MODERN CAPITALS drawn with a continuous line, such as a silk cord "couched" upon velvet would naturally take, and suitable, therefore, for that form of embroidery. The flowing line is here as much dictated by the conditions as the square and angular forms of the letters following the mesh of the canvas in 200. This alphabet might equally well be traced with a full brush, and so executed in paint or gesso. It was worked by Mary Kidd of S. Mary's Embroidery School, Wantage.
199. MODERN CAPITALS EMBOSSED on thin sheet-metal, the form and fashion of the letters suggested by the ease with which they could be beaten up. L. F. D.
200. EMBROIDERED ALPHABET, founded upon some letters in an old English sampler—The peculiar angularity of the forms follows naturally from working on the lines given by the mesh of the canvas, and is characteristic of a certain class of very simple needlework. L. F. D. (Compare with 126 and 202, and with what is said in reference to 198.)
201. MODERN CAPITALS AND LOWER CASES—Scratched straight off in moist clay, afterwards baked. The form of the letters is such as could be most easily incised with a point or stylus, and is characteristic of the way of working out of which it comes. L. F. D. (Compare with 198, 191, 192.)
202. MODERN ALPHABET IN RIGHT LINES, suggested by the square form of Chinese writing. L. F. D. (See p. 29. Compare with 200.)
203. MODERN ALPHABET, expressive of the brush, suggested by brush forms in Japanese writing. L. F. D. (See p. 29.)
204. MODERN BRUSHWORK LETTERS after Mucha.
205. MODERN STENCILLED ALPHABET adapted from E. Grasset and M. P. Verneuil.

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206. MODERN GERMAN MINUSCULE—Fancifully treated. After Franz Stuck, compiled from various designs by him, in "Karten und Vignetten," etc.
207. MODERN ROMAN, MAJUSCULE AND MINUSCULE, sans serif. These thin letters, all of one thickness, are sometimes described as "skeleton."
208. MODERN ROMAN, MAJUSCULE AND MINUSCULE, of French type, elegantly shaped and spurred. Drawn by J. Vinycomb.
209. MODERN ROMAN CAPITALS—A version of the French type (208). L. F. D.
210. MODERN ROMAN CAPITALS, not quite of the usual character and proportion. (Compare 118.) L. F. D.
211. MODERN ROMAN CAPITALS AND NUMERALS — Suggestive rather of the chisel than of the pen. J. Cromar Watt, architect.
212. MODERN ROMAN CAPITALS AND LOWER CASE—Rather further removed from orthodoxy than the last. J. W. Weekes.
213. MODERN "BLOCK" CAPITALS—Based chiefly on Roman. W. J. Pearce. From "Painting and Decorating." C. Griffin & Co., Ltd.
214. MODERN ROMAN "BLOCK," or sans serif, majuscule and minuscule, miscalled "Egyptian." J. W. Weekes.
215. MODERN CAPITALS—Inspired by Gothic. W. J. Pearce.
216. MODERN GERMAN version of Roman capitals. Otto Hupp. From "Alphabete und Ornamente." Frau Bassermann Nachfolger, Munich.
217. MODERN GOTHIC CAPITALS—Meant to be fanciful, but not to do any great violence to accepted form. An alphabet in which there is the least approach to design is always in danger of being considered illegible. Legibility is for the most part the paramount consideration; but there are cases, however rare, in which it is permitted even to hide the meaning so long as it is there, for those whom it may concern.

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218. MODERN CAPITALS AND NUMERALS—Patten Wilson.
219. MODERN CAPITALS derived from Gothic, yet playfully treated. L. F. D.
220. MODERN CAPITALS—More or less playful variations upon familiar forms of lettering. L. F. D.
221. MODERN CAPITALS—Rather Gothic than Roman, which break out (as was common in old work) into foliation which forms a sort of background to the letter. L. F. D., designed for Mr. Matthew Bell.
222. MODERN CAPITALS AND MINUSCULE drawn straight off with the pen. L. F. D.
223. MODERN PEN DRAWN LETTERS—Rather fantastically treated. German.
224. ROMAN CAPITALS—By Franz Stuck.

AMPERZANDS.

225. AMPERZANDS from various MSS., dating from the 7th to the 15th centuries.
226. AMPERZANDS—Free renderings of instances dating from the 16th century to the present day. In the top row may be traced the connection between the accepted & and the letters ET, of which it is a contraction.

NOTE.—Other examples of amperzands occur in illustrations 134, 136, 137, 138, 141, 142, 155, 167, 171, 176, 178, 189, 208, 212, 218, 222.

NUMERALS.

227. GERMAN, CUT IN STONE—The peculiar form of 4 is of the period; the 7's have, so to speak, fallen forward. 1477.
228. VARIOUS 15TH-CENTURY DATES—Flemish and German. 1491 is carved in wood and grounded out. 1439 is cut in stone, 1499 in brass.
229. FIFTEENTH CENTURY—German. Cut in stone.

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230. DATES FROM 1520-1545 —Chiefly cut in brass or bronze.
The figures in relief and grounded out.
231. FIFTEENTH CENTURY Numerals, 1520-1531, etc. German.
Cut in bronze or brass.
232. NUREMBERG—Bronze. About 1550.
233. GERMAN—Bronze. 1560.
234. ITALIAN—Painted on faience. Brushwork.
235. BRUSHWORK—16th or 17th century.
236. ITALIAN—From a chorale. Penwork. (Compare 110 and 117.)
16th century.
237. GILT FIGURES on a dark ground—Brushwork. 1548?
238. INCISED IN WOOD—1588.
239. BRASS, GROUNDED OUT—16th century.
240. PAINTED ON GLASS—16th century.
241. BRUSHWORK—16th or 17th century.
242. ROTHENBURG—Cut in stone. The 4 suggests the origin of
the 15th-century shape. It is an ordinary 4 turned part
way round. 1634.
243. ROMAN NUMERALS—From a bronze dial. Swiss. Figures
in relief, grounded out. 1647.
244. CUT IN STONE—1692.
245. VARIOUS DATES—1533, wood in relief. 1625, wood incised.
The rest on brass (grounded out) or cut in stone. The 1
in 1679 resembles the letter *k*—a not uncommon occur-
rence in 17th-century German inscriptions.
246. VARIOUS 18TH-CENTURY NUMERALS—The complete series
from an English Writing Book (Curtis), 1732. The Dates
incised in stone.
247. DATES FROM MONUMENTS—Stone and brass. 18th century.
248. NUMBERS FROM AN OLD MEASURE—Inlaid in brass wire on
hard brown wood. 1740.

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249. VARIOUS DATES—1573, Flemish, engraved on steel. 1747,
German, twisted brass wire inlaid in wood.
250. FANCIFUL NUMERALS. L. F. D.
251. MODERN.
252. MODERN—L. F. D. (Compare with 191, 192, 198.)
253. MODERN GERMAN—Alois Müller.
254. MODERN—L. F. D. (Compare with 217.)

NOTE.—Other numerals occur in illustrations—

- | | |
|--------------|------------------------|
| 142. | A.D. 1665. |
| 143. | A.D. 1697. |
| 155. | MODERN. Caslon type. |
| 169. | „ J. W. Weekes. |
| 170. | „ Bailey Scott Murphy. |
| 171 and 172. | „ R. Anning Bell. |
| 173. | „ A. Beresford Pite. |
| 176. | „ Percy Smith. |
| 189. | „ Type. |
| 211. | „ J. Cromar Watt. |
| 218. | „ Patten Wilson. |

ART IN THE ALPHABET.

THERE are two conditions on which the artist may be permitted to tamper with the alphabet : whatever he does ought, in the first place, to make reading run smoother, and, in the second, to make writing satisfactory to the eye. Neither of these desirable ends should, however, be sought at the expense of the other.

The way to make reading easier is to mark whatever is characteristic in the letter ; to develop what is peculiar to it ; to curtail, or it may be to lop off, anything which tends to make us confound it with another ; to emphasize, in short, the individuality of each individual letter, and make it unmistakable. At the same time, there is no reason why reading should not be made pleasant as well as easy. Beauty, that is to say, is worth bearing in mind. It must not, of course, interfere with use ; but there is not the least reason why it should. Beauty does not imply elaboration or ornament. On the contrary, simplicity and character, and the dignity which comes of them, are demanded in the interests alike of practicality and of art.

It is impossible judiciously to modify the letters of the alphabet as it is, or as at any given time it was, without thoroughly understanding how it came to be so. The form and feature of lettering are explained only by its descent.

All writing is a sort of shorthand. It is inevitable that the signs used to represent sounds should be reduced to their simplest expression. They become in the end mere signs, as unlike the thing which may have suggested them in the first instance as a man's signature, which is yet honoured by his banker, is unlike his name: enough if writing convey what we are meant to understand: the business of a letter is to symbolize a definite sound.

We arrive, then, by a process of what has been termed "degradation" of such natural forms as were first employed in picture-writing (call it rather adaptation), at an alphabet of seemingly arbitrary signs, the alphabet as we know it after a couple of thousand years and more. So well do we know it that we seldom think to ask ourselves what the letters mean, or how they came to be.

The explanation of these forms lies in their evolution.

Our alphabet is that of the Romans. We speak of it to this day as Roman, to distinguish it from Gothic or black letter. The Romans had it from the Greeks, or, if not immediately from them, from the same sources whence they drew theirs.

Certainly the Greek, Etruscan, and old Roman

alphabets were all very much alike. They resembled one another in the number of letters they contained, in the sound-value of those letters, and in the form they took. There were sixteen letters common to Greeks and Etruscans: ΑΒΓΔΕΙΚΛΜΝΟΠΡΣΤΥ; and this number sufficed always for

ΑΑΒΒΒΓΔΕΕΕΕΖΖ

ΗΘΘΙΚΚΛΜΜΝΝΟ

ΟΠΡΡΡΤΥΥΦΧΧΨΩ

I. GREEK MS. 9TH CENTURY.

the Etruscans, the race dying out before ever it had need of more. The Greeks had no longer (as the Egyptians had) any signs to represent syllables, that is to say combinations of vowels and consonants. They added to the alphabet, which they borrowed, with modifications, from the Phœnicians, extra letters to express words of their own. The Greek ΥΦΧΨΩ do not occur in

ΕΩΩΠΤΕΔΕΟ
 ΕΡΩΑΝΖΕΝ
 ΜΗΝΩΕΠ
 ΜΑΤΟΪ, ΗΝ
 ΑΝΟΥΡΩΕ
 ΚΩΤΕΕΥΠΟ
 ΛΙΣΕΡΟΕΙΣ
 ΕΡΟΣ,

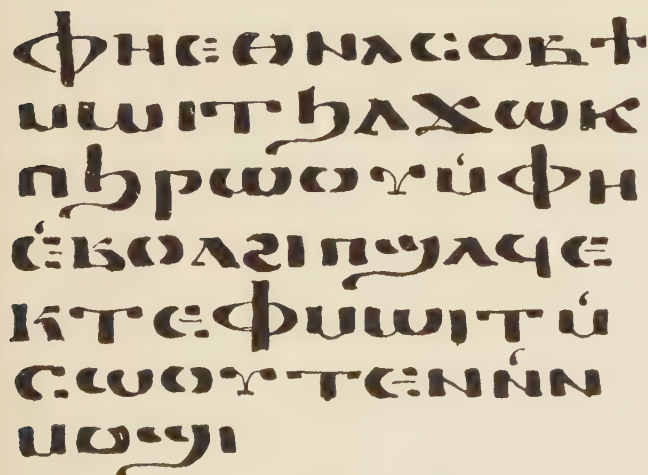
2. COPTIC MS. 5TH TO 10TH CENTURY.

the Phœnician alphabet. The Phœnicians had probably adopted from the Egyptians signs to express foreign sounds new to their own language, without knowing or caring anything about the pictorial origin of such signs. There was thus no reason why they should not modify what they regarded as arbitrary expressions of sound-values, and every reason why they should reduce them to the very simplest and most conveniently written shape—which they did; and so it comes about that we to-day are in all probability directly indebted to ancient Egypt for at least a portion of our alphabet, far removed as it may be from the hieroglyphics of the Pharaohs. That, however, is by the way,

and, besides, a long way off. For present purposes we need not go further back than to ancient Greece.

The Romans dropped all compound consonants, using at first the two consonants which most nearly expressed the sound equivalent to that of the Greek double letter; for example, PH in place of Φ. But they proceeded also to devise single letters for sounds which until then had been expressed by two; F, for example, instead of PH.

A Greek alphabet of the year 394 B.C. is given in illustration 54, and a 16th-century version in 55.



3. COPTIC MS. 12TH CENTURY.

Ⲑⲟⲥⲁⲡⲟⲥⲟⲩⲁ
ⲉⲙⲟⲩⲉⲙⲟⲩ
ⲉⲙⲟⲩⲉⲙⲟⲩ
ⲉⲙⲟⲩⲉⲙⲟⲩ
ⲉⲙⲟⲩⲉⲙⲟⲩ
ⲉⲙⲟⲩⲉⲙⲟⲩ
ⲉⲙⲟⲩⲉⲙⲟⲩ
ⲉⲙⲟⲩⲉⲙⲟⲩ
ⲉⲙⲟⲩⲉⲙⲟⲩ
ⲉⲙⲟⲩⲉⲙⲟⲩ

The more cursive form employed by the 9th-century scribe is shown in the manuscript letters (1) on page 3, whilst the more careful and elaborate writing proper to gold letters is illustrated by a page of 11th-century work (5) from a MS. in the Laurentian Library at Florence.

It is interesting to compare with these the Coptic writing (2, 3, 4), which is obviously only a variant upon the Greek; for the Christianized Egyptians, when they accepted Christianity, adopted the Greek alphabet, just as the Turks took the Arabic character at the time they accepted the Koran; and when, in the 6th century, the new faith was firmly established at Alexandria, Coptic writing supplanted the old Egyptian. So it happens that the Coptic alphabet is Greek, except for seven extra signs, taken from the ancient demotic alphabet, to express Egyptian sounds for which the Greeks had no equivalent.

The early Roman or Latin alphabet differed very little from the Greek. The latest comers in it were G H K Q X Y Z.

In its adaptation to the Latin language, Greek gamma or G becomes C. G is, in fact, almost equivalent to *hard* C. To the not too subtle ear the two sounds are like enough to pass one for the other, just as *soft* C may be made to do duty for S. When G came to be used as a separate letter, distinct from C, then C in its turn was used for K, though K did not go quite out of use.

ἄφραστοι ἡ πρόνοια τοῦ θεοῦ λόγοις
 ὅπως ἐπ' αὐτὸν τοὺς πεποιθότας θέλει
 πᾶσιν καλοῖς εἰωθεῖν ἐν γέτῳ τῷ φω-
 ῶς καὶ ἀληθινῇ προφητῶν τερπνοῦς
 ζήσας πεφενῶς περὶ κῆν τῷ εὐματῇ
 ὧς καὶ μάλωτος ἡ μένος τῆς βροχῆς
 ἡμεῖς ἐμὲν ἡντὸν ὅν δ' εὐρεν πάλιν
 καὶ πρῶτον ἡντὸν ἡντὸν ἡντὸν
 τὸ μέμονα γοῖς τῶν χρόνων ἡ δ' εἰτε-
 ῶν τῶν χαλινῶν προβλέπων κῆν τοῖς
 καλῶς δ' αὖτε τῶν ἡντὸν τῶν κατῶ-
 ρῆς εἰς ἡλίοις πενῶν παρὲς ἐκ βάσεις

The letter J did not exist either in the Greek or in the ancient Roman alphabet. It is equivalent to II. Place one I over the other and you get a long $\frac{I}{I}$. Eventually the initial developed a tail, and became J. Towards the 15th century the initial I was pretty generally written J.

The Greek Υ (*upsilon*) becomes the Roman Y. The letters U and V were long considered as interchangeable; one or other of them might be used, or both at once in the same word in the same sense. It was not until the 10th century that the custom arose of using V before a vowel, and elsewhere using U.

Though Ω (*omega*) stood for long O, the Latin letter, which was derived in form from it, bore the value of W. And, as may be seen in the 9th-century alphabet on page 3, omega was sometimes *written* precisely like a W.

The alphabet, as we know it, owes something also to Scandinavia. The Runic writing, as the script of the Scandinavian and other Northern European priesthood was called, dates back to legendary days. It was the invention, they say, of Odin himself. If so, Odin, to judge by internal evidence, must have derived it from some earlier Greek or Roman source. What we know is, that it was in use from the time of the first intercourse between Scandinavians and Romans. The Christian Church forbade its use, and with the triumph

A B C D E F G H I L M
N O P Q R S T U V

6. ROMAN MS. 4TH CENTURY.

of Christianity it passed out of currency; but it lived long enough to affect in some degree our Anglo-Saxon writing.

It will be well now to mark the more decided steps in the progress of the alphabet. The type we use takes, as every one knows, two forms—a larger and a smaller, a major and a minor, or, as printers put it, “capitals” and “lower case,” or the small letters which, being most continually in request, it is convenient to keep near at hand, in the lower part of the case, from which the compositor, so to speak, feeds himself. Our written character takes the form of a “running” hand, and is known by that name, or by the more high-sounding title of “cursive.”

A B C D E F G H I L M
N O P Q R S T U V X Z

7. MS. 7TH CENTURY.

A B C D E F G H I K L M
N O P Q R S T U V Y

8. ROMAN UNCIALS. 8TH CENTURY.

Now, the printer's "lower case," or "minuscule," as it is also called, is practically the book form of running hand, except that the letters are quite separate, not conjoined as they are in what pretends to be only the hand of the ready writer, and does not claim to be beautiful at all.

The earlier form, whether of Greek or Roman letter, was the capital, the square shape, with relatively few curved lines, which could conveniently be cut in stone or engraved on metal. This is, in fact, the *monumental* style—adapted to, and, what is more, inspired by, the chisel or the

A B C D E F G H I L M
N O P Q R S T V Y

9. ROMAN "RUSTIC" WRITING. 5TH CENTURY.

ABCDEFGHIJLM NOPQRSTVY

10. ROMAN MS. CAPITALS. 6TH CENTURY.

graver. You have only to look at it (54, 56, 57) to see how precisely fit it is for its purpose. There is no mistake about it, it is incision.

Manuscript writers adopted for book writing a different character, or rather they adapted the square capital letter to more ready execution with the pen, and so evolved a rounder kind of letter which is known by the name of *uncial*—not that it was invariably inch-long, as the term is supposed to imply.

The uncial form of writing is intermediate, you will see (8), between the monumental writing and the “current” hand of the ready writer. It is, if not the step between the two, a compromise between them—no matter which; what it concerns us to know is that calligraphy took that direction, which goes to explain many a later form of letter widely differing from the original square type. The relationship between these uncial letters and the cursive Greek (1) is obvious.

The uncial character does not so much affect the modern printer; but it is the form of letter from

AAACDEFLM

OOPORSTV

II. MS. CAPITALS. 6TH CENTURY.

which the artist who prefers his own handiwork to that of the printing press has perhaps most to learn.

A squarer form of capital employed by the Romans in manuscripts of the 5th and two following centuries, is known by the name of "rustic"; not that there was anything rustic about these capitals in our sense of the word; but the Latin word was used in the sense of free and easy, *sans gêne*. The character of the writing is not so formal as was supposed to befit the town. It is a kind of country cousin; it stands, let us say, for the Roman capital in a loose coat and a soft hat. The characteristic points about it (9) are that the vertical strokes are all very thin, and the cross-strokes broad. These cross-strokes take the form of a kind of tick, tapering at the ends; and similar ticks are used to emphasize the finishing of the thin strokes. That all of this is pen-work is self-evident. But, as before said, the more usual form of penmanship at that time was the uncial letter.

ABCDEFGHIK LNOPRSTVX

12. BYZANTINE CAPITALS. 7TH CENTURY.

Even when the Roman manuscript writers used, as they sometimes did, the square capital form, they did not confine themselves (II) to the severely simple shapes which came naturally to the lapidaries. The unequal strength of the lines, the thickening of the strokes at the ends, and the spurred or forked shapes they take, all speak of the pen; not the steel pen, of course, nor yet the more supple quill, but the reed pen—rather blunter than a quill, but pliant enough, and not given to spluttering. Moreover, it did not tempt the writer to indulge in unduly thin upstrokes.

Capitals, Greek and Roman alike, represent, roughly speaking, the first accepted shapes, engraver's or carver's work. Uncials stand for MS. writing, scribe's work, growing by degrees rounder and more current. The smaller minuscule was evolved out of the running hand of the mercantile, as distinguished from the literary, scribe. It was not used by the ancient Romans, and it was not until towards the 8th century that running hand was thus reduced to order. The greater part of what is called cursive writing scarcely concerns

ABCDEFGHIGMN
OPQRSTUVWXYZ

13. INSCRIPTION CUT IN STONE. A.D. 1085.

the calligrapher ; it might equally be called discursive, so apt is it to run wild, in which case it tells less of the progress of writing than of the caprice or carelessness of the individual writer.

That was not the case with the various ceremonial versions of running hand employed by the writers of Papal Bulls and Royal Charters. Such "diplomatic" hands, as they are styled (because diplomas were written in them), and the so-called "Chancery" hands, are highly elaborate, and in a sense ornamental, but they are so unlike our writing as to be, practically speaking, illegible. They are very suggestive for all that. A specimen of English Court hand is given in Alphabet 157.

With the decline of the Roman empire came naturally the demoralization of the Roman character, capital or uncial ; and just in proportion as Rome ceased to be the one centre of the world, and other nations rose into importance, so their writing began to show signs of nationality. At the loss of some refinement, we get thenceforth

variety of character. By the beginning of the 8th century distinctly national styles of lettering were evolved.

To subdivide these styles so minutely as the learned do, is rather to bewilder the poor student by their multitude. The important European races were the Latins, the Franks, the Teutons, and Anglo-Saxons, and the Visigoths; and from them we get respectively the Lombard, the Frankish,



14. FRANCO-GALLIC MSS. HEADLINES. 7TH CENTURY.

the Teutonic and Anglo-Saxon, and the Visigothic types of writing, all of which eventually merge themselves in what we call Gothic, in which, nevertheless, we still find traits of nationality, English, French, Italian, German, Spanish, as the case may be.

First as to the Lombardic character, which prevailed in Italy from the 8th to the 11th century. It was not, as its name might be taken to imply, the invention of the Lombards. They were just long-bearded conquerors, and invented nothing. The character was not even confined to Northern

Italy; only it happened first to be developed there, and so all later Latin writing (after the Empire) came to be called "Lombardic."

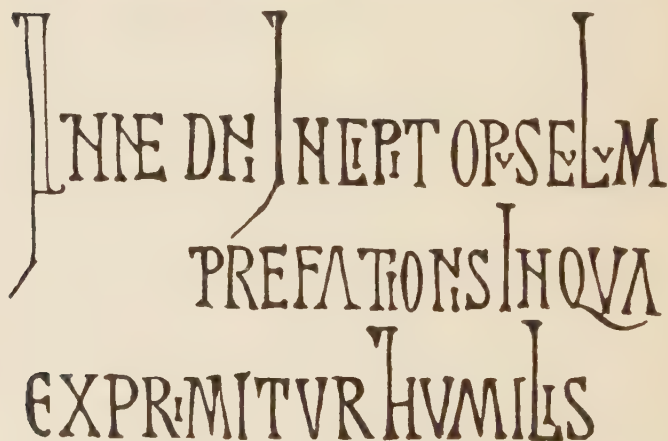
It has already been explained how uncial writing was transitional between square "caps" and rounder pen-forms. The Lombardic shows a further stage of transition. The penman had not quite made up his mind between straight lines and curved; he hesitated between the square-lined M and N and the rounded forms (19, 20, 68). Eventually he decided in favour of the bulging shapes, which in their later development we distinguish by the name of Lombardic capitals (74).

There is a broken-backed version of the Lombard minuscule, "*Lombard brisée*" the French call it, which, though not intrinsically beautiful, is interesting as foreshadowing the later form of Gothic "lower case" which we call "black letter."

Our own "lower case" we get more or less directly from Charlemagne. He found, perhaps his friend the Pope told him, that writing had degenerated by the time he came to the throne (A.D. 800) to a state unworthy of a mighty emperor. Accordingly he ordained its reformation. He went so far as to compel bishops and other important personages who could not write decently to employ scribes who could. In this way he revived the small Roman character, which we eventually adopted for our printed type.

The scribes of Charlemagne (and for some time

after him) did not yet manage to fashion very satisfactory capitals. They still mixed up letters all of one thickness with others in which thick and thin strokes, or diminishing strokes, were used in a most illogical and awkward way (64)—indicative, of course, of a period of change. But they did arrive at a satisfactory and very characteristic rendering



15. VISIGOTHIC MS. 10TH CENTURY.

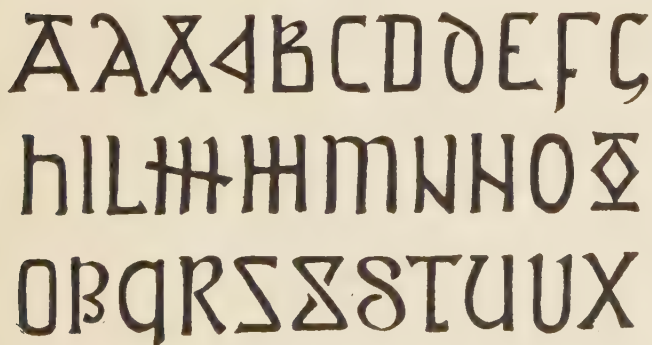
of minuscule lettering. A conspicuous feature in it was the elongation of the longer limb of the l p g q f d—*tails*, that is to say, came into fashion, and long ones, as much as four or five times the length of the body of the letter. The letter s took also the long form, f. The letter t, on the other hand, does not rise much above the line, sometimes not at all.



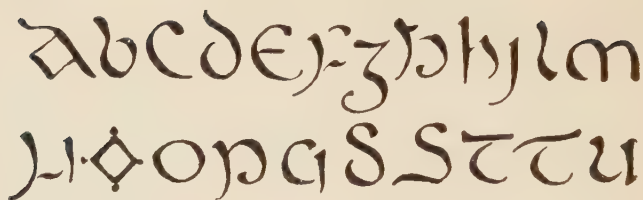
16. SAXON ILLUMINATION (CAROLINE). 9TH CENTURY.

That elongation of up-and-down strokes is characteristic of Frankish and Visigothic lettering generally. It occurs even in the case of capitals, as in the headlines of the 10th-century MS. on p. 18. There the I, the H, and the L rise high above the heads of their fellows, whilst, on the other hand, the V-shaped U in the word OPVSCVLVM is reduced to more than modest proportions.

There appears to be in Visigothic lettering, of which that is a good example, usually a trace of Moorish influence, betraying itself in the liberties taken with the *proportion* of the characters; the Moors had by that time overrun Spain.



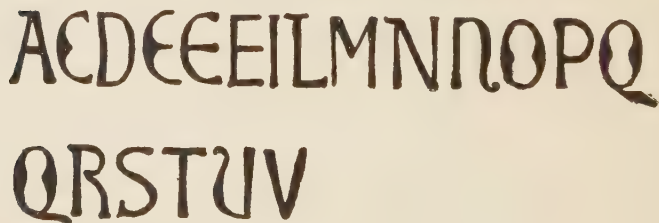
17. ANGLO-SAXON.



18. ANGLO-SAXON MS. 9TH CENTURY.

There is something very whimsical about the character of Anglo-Saxon capitals; at times mechanically square in form, at others exceptionally flowing and even frisky (16, 17, 62, 63). Anglo-Saxon lettering was affected by lingering traces of an obsolete alphabet derived perhaps at some remote period from the Gauls, which, to judge by internal evidence, must have been something like the Greek. In the minuscule character (18) there is a curious twist in the long stroke of the b and l.

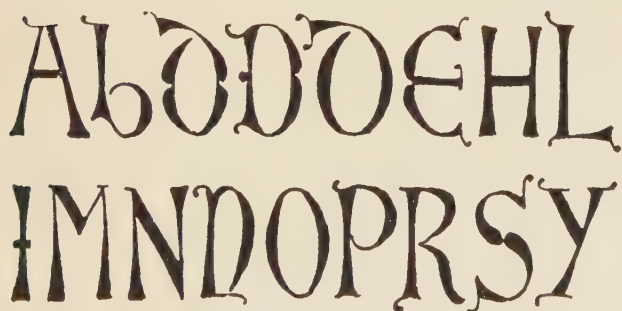
By the 13th century the Gothic style had formed itself. In the next hundred years or more it was perfected. At the end of the 15th century it was



19. FLORENTINE, INCISED AND INLAID. 12TH CENTURY.

still flourishing—flourishing was the word literally—in the 16th letters were sometimes nearly all flourish: it takes an expert to read them.

The Gothic variations upon the Roman capital form are characteristic: the thick strokes are not even-sided, but expanded at the two ends or narrowed towards the centre; the curved strokes do not swell so gradually as before, but bulge



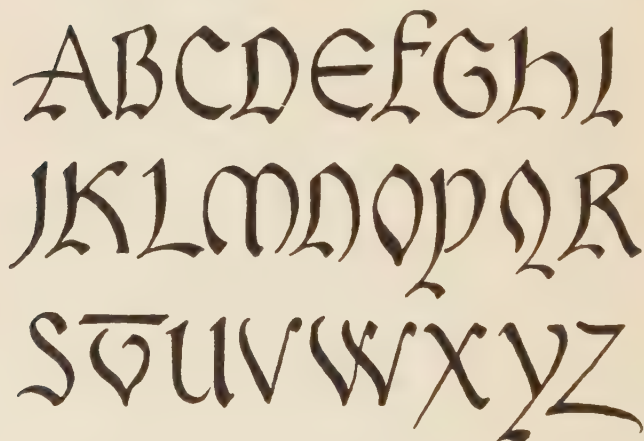
20. ITALIAN MS. EARLY 13TH CENTURY.

more or less suddenly; the tails of sundry letters break insubordinate from the ranks; and the extremities are often foliated or otherwise ornamented (66, 69, 71). Markedly characteristic of Gothic of the 13th and 14th centuries are also the “closed” letters, of which examples occur in Alphabets 76, 77, 78, 80, etc.

What are called Lombardic capitals were used, not only as initials, but for inscriptions throughout. In fact, it was not until the 15th century that

inscriptions were commonly written in minuscule letters. In many cases these Lombard capitals were not written with a pen, but with a brush, from which results something of their character. The brush lines were fatter than pen strokes.

Gothic characteristics, however, only gradually



21. FREE RENDERING OF LOMBARD MSS. ABOUT 1250.

asserted themselves, and individual scribes clung tenaciously to the older forms. The alphabet opposite, for example, though of the 15th century, only mildly represents the period to which by date it belongs.

Gothic letters lend themselves to more variety in design than Roman, not being so perfect in themselves. To some, perhaps, they are more

interesting on that very account: perfection palls upon us. Anyway, the Gothic forms are often very beautiful. The Roman letter is classic, and therefore fixed—or, should it rather be said, it is fixed, and therefore classic?

With regard to the Gothic minuscule character (23, 24, 25), the even perpendicularity of the broad, straight strokes gives at a glance the character distinguished as “black letter,” because it is rela-



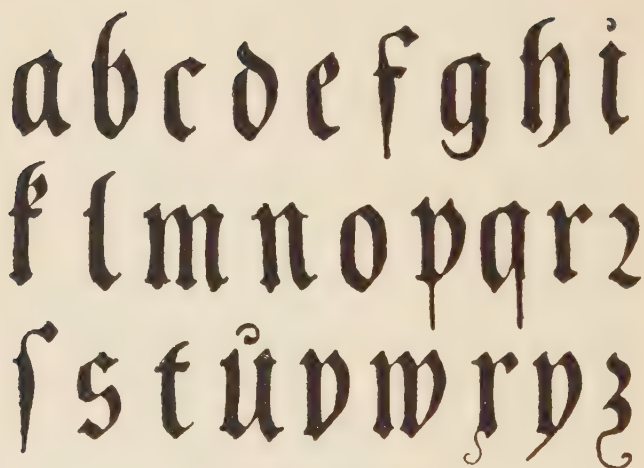
22. CAPITALS. 15TH CENTURY.

tively much heavier than the Roman minuscule. You have only to compare the two to see that the “black letter” is blacker.

The Germans marked this form of lettering for their own, and persevered in its use long after the rest of the world, in pursuance of the fashion of classicism prevailing in the 16th century, had abandoned it for the Roman style of lettering.

The mediæval German version of black letter was stronger than that of other countries, the French more fanciful, the Italian more refined, more perfect, but perhaps never so Gothic.

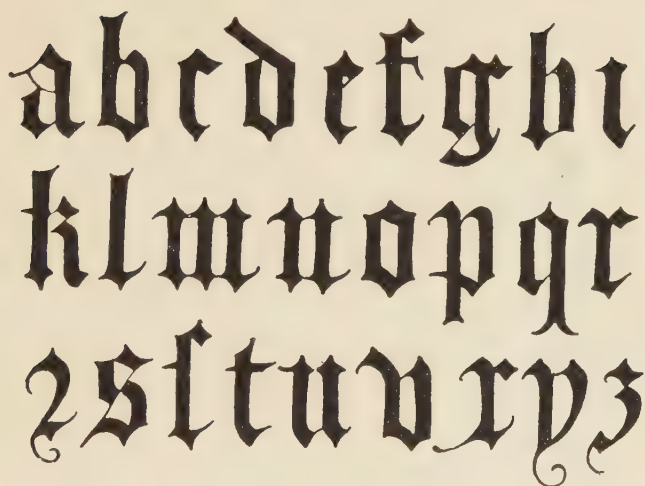
The old “black letter” varied, as will be seen,



23. GERMAN GOTHIC MINUSCULE.

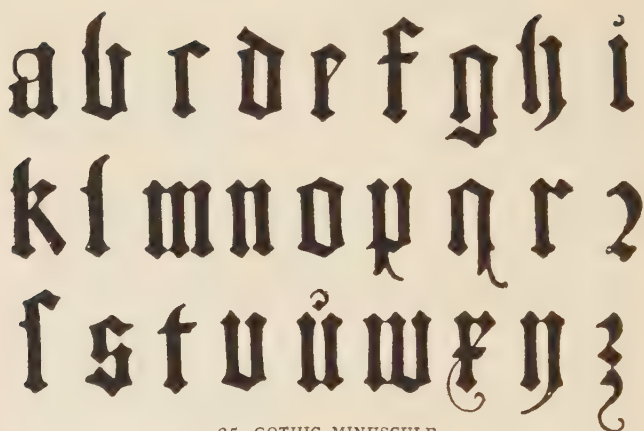
very much in character. The rounder form (23) is freer, easier to write, more cursive. The more regular and straight-backed letter (24, 25) went rather out of fashion for a while; but it was revived by the printers, who saw in it what they could best imitate.

The type we use nowadays has shaped itself in a more or less accidental way. In the first place, it was a copy of manuscript forms. That was inevitable. Possibly printers were anxious to palm off their printed books as manuscripts. But, apart from any such intent on their part, their text was bound to follow the written page, or no one would have been able to read it. And as, at the time of



24. GERMAN GOTHIC MINUSCULE.

the introduction of printing, two styles of writing were in use for manuscripts, there arose naturally two styles of printed type—"Roman" and "black letter." In printing, as in manuscript, however, black letter gave way to the Roman character, but not all at once; there was a period of transition during which some very interesting and characteristic types were used. We in our day have arrived, by a process of copying the copies of copies of copies, from which all the virtue of vitality and freshness has died out, at a 20th century type (look at the newspapers), which compares most unfavourably with the early printing. The modern form of letter is in a measure fixed for us by



25. GOTHIC MINUSCULE.

circumstances; we cannot conveniently depart far from it; but something may be done. There is no need to revive mediæval lettering, no occasion to invent new lettering all out of our own heads, if that were possible; any new departure of ours must be very much on old lines; but at least we might found ourselves upon the best that has been done, and go straight to that for inspiration.

Type, as before said, was based on manuscript forms. These manuscript forms had been shaped with a view always to easy writing. What was difficult to pen dropped out of use, and lettering became what the scribe made it. The considerations, however, which guided the writer no longer concern the printer. It is time, perhaps, he took stock of the alphabet—looked over it with a view

to its perfection, since one shape is about as easy to *print* as another. The changes which have taken place in our printed type during the last three hundred years or so may very likely have been on the whole in the direction of easy reading, but they have not been in the direction of beauty ; and it is quite likely that it may be worth while restoring some obsolete forms of letter now that we have not to write them. There is inconvenience in departing in any appreciable degree from the accepted form of letter ; but we have arrived to-day at a period when everyone is so familiar with the printed page that, prejudiced as we may be against any modification of it, there is no danger of our finding any real difficulty in reading an improved type. Lettering is none the more legible because it is ugly : beauty is compatible with the very sternest use.

The earliest writing was most probably scratched with a point upon whatever came handiest to the scribe—skins, palm leaves, or the bark of trees, and especially upon clay, a material which had only to be burnt to become more lasting than stone.

If, in scratching upon firm clay, the writer begins his stroke with a dig and then drags out the tool, it results in a wedge-shaped scratch. That seems to be the way the cuneiform character came about ; but the lettering upon the early Babylonian “bricks,” as they are called, is so precisely defined that it must have been done with a sharp graver-

like point. These "wedge-shaped" or "arrow-headed" characters came to be copied, as we know, in stone, in which again they were about the simplest thing to cut. Three, or at most four, direct cuts give the Ninevite character, as we know it in the famous bas-reliefs. It is descended from clay forms, but its own mother was the stone out of which it was cut. The chisel was its father. Even in inscriptions as late as the 18th century or thereabouts, the stone-cutter lapses, as may be seen opposite, into more or less wedge-shaped incisions; the chisel tempted him, and he yielded to its persuasion.

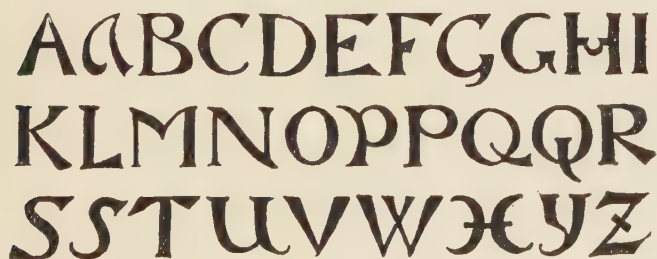
From the cuneiform character to simple Greek (54) or Roman (56) capitals, as square as well could be, is not far; and the clear-cut inscriptions on classic monuments are still typically chisel work. Very early Greek inscriptions are, however, not much more than scratched in the granite or whatever it may be. The small Greek character on the famed Rosetta stone is *mere* scratching.

Writing done with a stylus on tablets of wax was naturally blunt. Penwork at first was also much blunter than modern writing—owing partly, no doubt, to the use of the reed pen, partly to the texture of papyrus, and partly to the consistency of the ink. The strokes of early lettering in Egyptian, Greek, and Latin manuscripts alike, are rather thick, and rounded at the angles, not sharply turned.

It was a reed pen with which the Arabs wrote,

holding it more or less horizontally so as to retain the ink, and sloping the paper or papyrus at a convenient angle; and it was in writing the Roman letters with a reed pen that the mediæval scribes gave it its Gothic character. It was not until the quill (which held the ink better) came into use that the Italians developed their minuscule letter with its thick and thin strokes.

A glance is sometimes enough to tell whether an early Egyptian manuscript was written with a pen



26. FROM INSCRIPTIONS CUT IN STONE. ABOUT 1700.

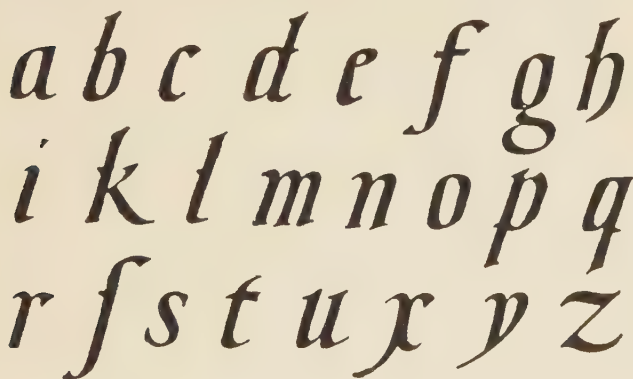
or with a brush. The Arab penmen, who took great pride in their art, wrote with a wonderfully elastic pen, and got out of the reed forms which remind one at times of brushwork; but the *neskhi* character is as obviously the pen form of writing as the squarer *cufic* is the monumental. So also we find among the Chinese and Japanese one form of lettering which is characteristically brushwork, and another almost rectangular, which last is clearly the monumental manner.

Even in late Gothic lettering we find a minuscule which is of the pen (23), and another (24, 25) which is monumental, adapted, that is to say, to precise and characteristic rendering with the graver upon sheets of brass. It is curious that out of this severe form of writing the florid ribbon character (108) should have been evolved. But when once the engraver began to consider the broad strokes of his letters as bands or straps, which, by a cut of the graver, could be made to turn over at the ends, as indicated in Alphabet 125, it was inevitable that a taste for the florid should lead him to something of the kind. The wielder of the brush was in all times induced by his implement to make flourishes (32, 33), in which the carver had much less temptation to indulge. The sloping or "italic" letter (27) is, on the face of it, the product of the pen.

We find, then, that the implement employed, stylus, reed-pen, brush, or whatever it may have been, goes far to account for the character of ancient lettering. So soon as the writer ceased to be satisfied with mere scratching or blunt indentation, and took to the use of the chisel, he felt the need of a square cross-cut to end the stroke of his letter. If that was broad, there was no occasion for the cut to go beyond the width of the stroke itself. If it was narrow, the easier thing to do was to anticipate the danger of overshooting the mark, and frankly extend the end cut. This method of finishing off the broad line

by a projecting cross-line is technically called truncation, though literally that only means cutting off. Slight but appreciable difference in character results from the angle at which the strokes are truncated or cut off.

In working with a pen, this difficulty of ending the stroke occurs only in the case of very bold lettering. In small writing the strokes naturally



27. ROMAN ITALICS.

take pen-shape. They start square and gradually diminish, or *vice versâ*, or they thicken in the middle, according to the angle at which the pen is held, and to the pressure, which it is difficult to keep quite equal from end to end of the stroke.

It should be observed that the pressure is not naturally in the middle of the stroke, but at one end; the penman does not naturally get the symmetrical Roman O, but the Gothic O (117).

That is the pen-born shape. The even-sided O was, if not easier to cut in stone, at least as easy ; there was nothing to prevent symmetry, which was accordingly the rule in sculpture. It is rather futile to aim at that kind of thing with a pen ; much better let the pen have its way ; and its way is otherwise (176, 179). We get so much more out of our tools by going with them, that it is rather stupid to strive against them.

In very bold writing, even with a pen, the necessity for truncating the thick strokes occurs. You cannot easily, with one stroke of the pen, make a thick line which begins and ends square. It wants trimming ; and the easiest way to trim it is by means of a fine cross-stroke extending beyond its width. This cross-stroke **T** helps to preserve and to accentuate the regularity of the *line* of lettering, for which a writer worth the name naturally has a care. The broad stroke being rather loaded with ink, the fine cross-stroke is inclined, in crossing it, to drag a little of the ink with it, rounding one angle of it. The obvious way of rectifying that is to round the opposite angle also—and so we have the familiar finish **T**, which is equivalent to the “spur” of the chiseller mentioned just now (208).

The angle at which the cross-line joins the stroke may be softened until it disappears, and the stroke appears to be curved on either side—“dilates,” to use another accepted term, at the



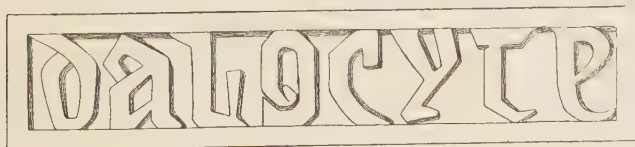
28. ROMAN MOSAIC. LOUVRE, PARIS.



29. ENGRAVED BRONZE TABLETS. NAPLES MUSEUM.



30. ENGRAVED BRONZE TABLETS. NAPLES MUSEUM.



31. STONE. CORDOVA. 1409.

AGRI
MORI
MORI
TAGRI

32. PAINTED ON HISPANO-MOESQUE POTTERY.
15TH AND 16TH CENTURIES.

italiano
e
di
vino
e
fondo

ends. Historically, we arrive at that in Lombardic and other writing as early as the 8th century (60).

Anticipating this dilation, the penman eventually made strokes in which the elementary straight line altogether disappears (68). Further elaborating, he arrived at the rather sudden swelling of the curved back of the letter, familiar in work of the 13th century and later (73, 87). With the forking of the terminations, and the breaking of the outline in various ways (20), we arrive at fantastic variation to which there is no conceivable end (34, 84, 88, 91, 120). Few instances, therefore, of the elaborate ornamentation of the lettering are here given (109, 120, 151, 152). Enough to give alphabets in which the ornamental design is in the construction of the letters themselves.

With the use of thick and thin strokes comes a difficulty. Which shall be thick, and which thin? The scribes were a long while making up their minds on that point, and they contrived some very awkward combinations (64). The solution we have at last come to is probably the best that could be found. We need scarcely bother ourselves about trying to improve upon modern practice in that respect; it has been a case of the survival of the fittest.

Out of the use of thick and thin strokes arises the necessity for graduated strokes, there being no other way of treating the *curved* lines intermediate between the two. Then, if the thick strokes are



34. ENGRAVED ON BRASS. 1395.

STYGEZ
CLUTTA

35. PAINTED ON WOOD. 1727.

GNERGY

36. PAINTED ON MAJOLICA. 1518.

truncated, the thin lines appear to want corresponding accentuation at the ends; and so the "serif" runs all through the alphabet (118, 119, etc.).

The further influence of the writing tool upon the form of the letter is shown on pages 32, 33, 37, etc., and in Alphabets to which reference is made in the descriptive list of illustrations. A number of these Alphabets have been deliberately designed with a view to execution in a specific material.

With regard, now, to Numerals. Until the 15th century, the letters M, D, C, L, X, V, and I were in general use to express numbers.

The Arabic numerals, as they are called, found their way into Europe some time during the 12th century, but did not come into general use before the 15th, nor indeed much before the introduction of printing, which diffused the knowledge of them. Their adoption in England was more tardy than on the continent, the beginning of the 17th century being given as the date of their universal acceptance here. The numerals, as we know them, or even as they were written in the 15th century, do not bear any marked resemblance to the genuine Arabic; numbers 1 and 9, and the all-important cypher, 0, are the only Eastern figures which seem to claim direct oriental ancestry.

The figures of the 15th century are not always at first sight very easily legible; the 7, for example (227), presents anything but a familiar appearance, but upon examination that inverted V proves to be

PTV ARVN

GL OSKN

37. GOLD LETTERS PICKED OUT OF BLACK PAINT. SPANISH.

A E G R S 3

38. PAINTED ON WOOD. ITALIAN. 15TH CENTURY.

A E I O P Q
R S T V Y

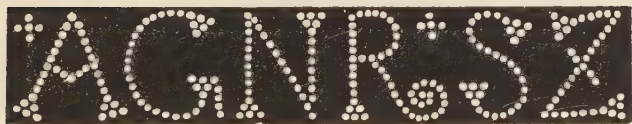
39. PAINTED ON GLAZED EARTHENWARE. ENGLISH.
18TH CENTURY.

really an equal-limbed 7 placed (as it would naturally fall) so as to rest upon its two ends: it is not the figure that is changed, but its position. Much more puzzling is the early form of 4 (227, 228, 229), a loop with crossed ends upon which it stands. The popular explanation of the figure as "half an eight," is anything but convincing; and it appears to have no Eastern prototype. There is a 17th-century version of it, however, in the Franciskaner Kirche, at Rothenburg (242), which, had it been of earlier date, might have been accepted as a satisfactory explanation. There the loop has a square end, and the figure rests, not upon its two loose ends, but partly on its point. Imagine this figure standing upright, one point facing the left, and it is seen to be a 4 of quite ordinary shape. This may not be the genesis of the form; but, if not, it is ingeniously imagined by the 17th-century mason.

Writers have from the first made use of contractions, the ready writer in order to save time and trouble, the calligrapher, sculptor, and artist generally, in order to perfect the appearance of his handiwork, and, in many cases, to make it fit the space with which he has to deal. The ends of art are not satisfied by merely compressing the letters, or reducing them to a scale which will enable the writer to bring them all into a given line (208). We, in our disregard of all but what we call practicality, have abandoned the practice of contraction, except in the case of diphthongs, and

BRASH
PATIN

40. PAINTED, GERMAN GOTHIC, INITIALS.



41. COPPER RIVETS ON LEATHER. SALZBURG MUSEUM.

B B D f I
V W V Z

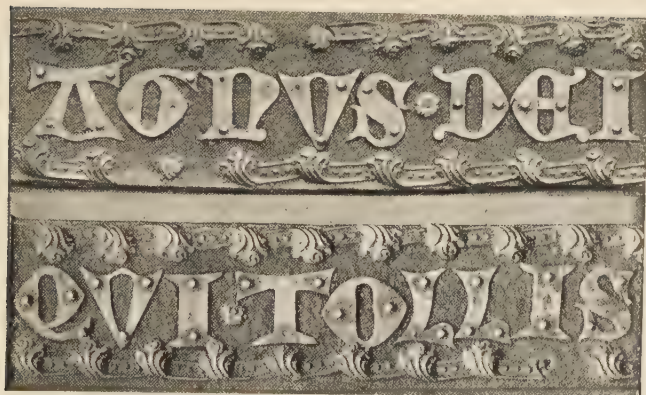
42. ENGRAVED IN BRASS. BRUGES.

in the exceptional instance of the word "et." The "amperzand," as the printer calls it (225, 226), still lingers in his founts of type, and is used even more habitually by the ordinary penman of to-day.

To what does all this investigation of the alphabet lead? It is of no use trying to evolve brand-new alphabets out of our inner consciousness. No one would understand us, and we want to be read. Originality is what we all desire; but it is scarcely the thing to seek consciously, least of all in lettering; it comes of its own accord if ever it comes. We are original or we are not.

While the alphabet is alive there will be changes in it, but they must inevitably be gradual; we can only creep on to new forms. Practically, what we have to do is to take an alphabet and modify it according to our wants or inclinations, without, as a rule, interfering much with its legibility. A man may, if he knows what he is about, make it more legible, as well as in other ways bettering it. But to do that intelligently, he should know something of the descent of the lettering on which he founds himself. That is why it has been thought worth while to discuss the subject at such length here.

An important consideration in the design of an alphabet—if design be not too pretentious a word to use in speaking of what can scarcely be much more than a variation upon orthodox forms—is that the letters should be systematically treated.



43. APPLIED LETTERS. SILVER.



44. CARVED IN STONE. FROM BISHOP WEST'S CHAPEL, ELY
CATHEDRAL. CA. 1534.

They are more likely to be all of one family if we derive them from one source. But there is no reason why we should not cross the breed in lettering, if thereby we can improve the stock. An alphabet, however, should not *look* hybrid. The artist is free to do what he can ; but the test of success is that his creation should look as if it must be so, and could not have been otherwise.

Why, it is asked, should any one trouble himself about hand-drawn lettering, when he has ready to his use type, which is so much truer and more perfect ? Truer, perhaps, it may be, in the sense of being more mathematically exact, but it is not necessarily so truly uniform in effect ; for the unyielding letters of the type-founder come together as best they may, and if they come awkwardly he can't help it. The writer can, and indeed he should.

There is no denying that many an artist who ventures to introduce lettering into his design, does it ill, does it so carelessly, or is so easily satisfied with very indifferent penmanship, that of the two evils hard and fast letterpress would have been the lesser. None the less true is it that an artist who has been at the pains to learn to write, can, if he aim at what pen or brush will do, and refrain from entering into foolish and ineffectual rivalry with the printing press, do what that cannot do, and do better.

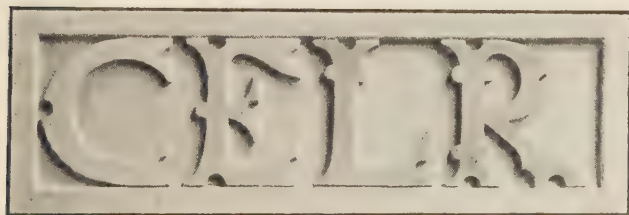
Looking at an early printed book, you are



45. LEAD GLAZING. AFTER WINSTON.



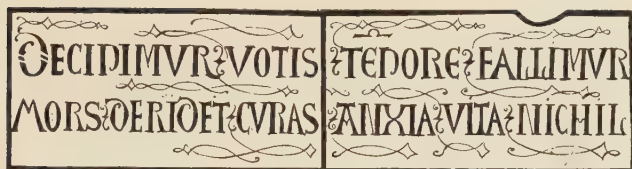
46. CUT LEATHER FROM A BOOK BINDING. HAMBURG MUSEUM.



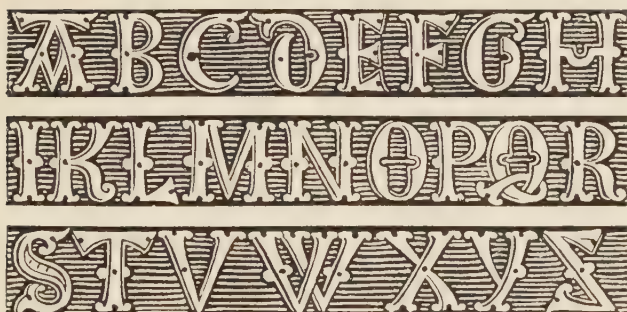
47. CARVED IN STONE. ST. MARGARET'S CHURCH, KING'S LYNN. 1622.

astonished, each time afresh, at the beauty of the page. But if you go from that straight to a fine manuscript, you realize that, after all, printing, even such printing as was done by the great printers, is a makeshift. It is a makeshift we have to put up with, and we may as well make the best of it; merely petulant complaint is childish; but when occasion does occur, let us have the real thing, and don't let us be persuaded by readers so greedy of print as to have lost all appetite for beautiful writing, that there is no flavour or artistic savour in it. It is not good manuscript, but their spoilt palate, which is at fault.

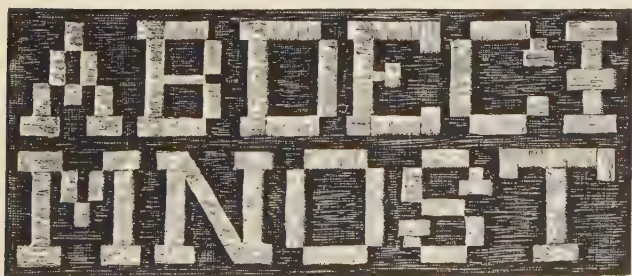
Having perfected machinery, we are doing our best to make ourselves into machines. Until that happens—which God forbid!—man's hand is still the best, in art at all events; and were it not the best, it would still have the charm of character, that individual quality for which a public brought up exclusively on printed type has no relish. Print, with its mechanical smoothness, and precision, has gone far to distort the modern ideal of lettering, just as photography, with its literalness, has degraded the ideal of art. There are people who resent as a sort of impertinence anything in lettering which the printing press cannot do. They are ready to take offence at whatever is unfamiliar. Really the impertinence is in a makeshift thing like type usurping any kind of authority in a matter quite beyond its scope.



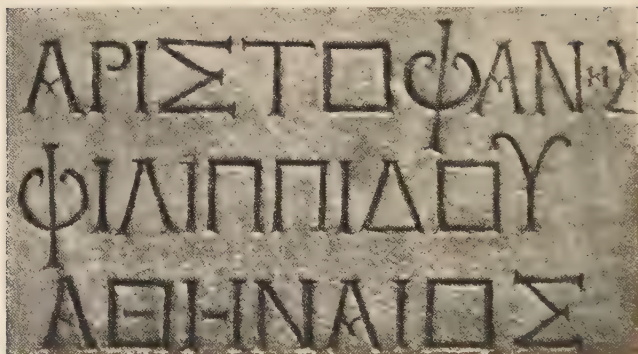
48. PAINTED ON GLASS. AFTER WINSTON.



49. ENGRAVED ON SILVER. FROM A CUP.



50. EMBROIDERED IN GOLD THREAD. JAMES 1ST.



51. CUT IN MARBLE. ON AN ANTIQUE BUST OF ARISTOPHANES
IN THE UFFIZI, FLORENCE.



52. STAINED AND PAINTED GLASS. FROM WINCHESTER
CATHEDRAL. AFTER WINSTON.

The great difference between old lettering and new is that in days before type-founding the scribe was free to play variations on the well-known alphabetical air, whereas our print is monotonous as the tune of a barrel organ.



53. CUT OUT OF GLAZED TILES EMBEDDED IN CEMENT.

CORDOVA.

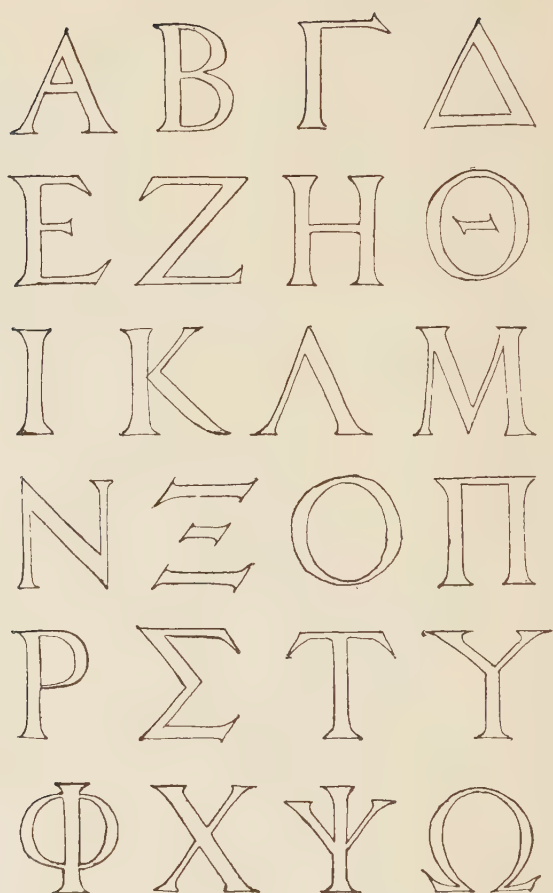
Pedants are never happy until everything is fixed. But nothing is fixed until it is dead. Life is in movement. Philosophy has long since given up the search for perpetual motion, but that is the secret of it—life; and that is the evidence and sign of life—motion. English will be a dead language when there is no longer any possibility of change in the way it is written.

OLD ALPHABETS

ARRANGED IN ORDER OF
THEIR DATE. MANY OF THEM
DIRECTLY DUE TO THE USE
OF CHISEL, PEN, BRUSH, &c.



54. GREEK. FROM A STELE AT ATHENS. B.C. 394.



55. GREEK INITIALS, PRINTED AT BASEL. 16TH CENTURY.

A B C D E

F G H I K

L M N O

P Q R S T

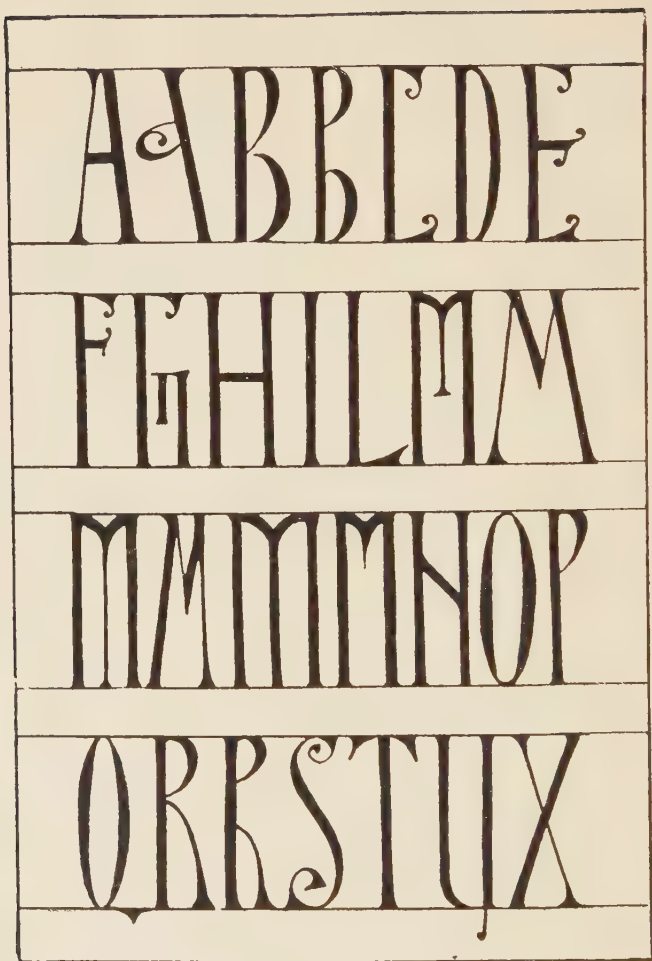
V X Y Z

A A B C C D E
F G E F G H I L
M L M L M N
X N O P P P P
Q R R S T R R
S T V X V X Y

57. ROMAN. FROM SCULPTURES IN THE BRITISH MUSEUM.

A.D. 150 TO 300.

A A B C C
D E F G H
I L M N N
O P Q R S
S S T S U



59. FROM A CODEX, 7TH OR 8TH CENTURY.

A B C D
E F G H I
J K L M N
O P Q R
S T U V X
Y Z

A A A A A B
 U E E E E E
 H H I K L H
 N N H N O D
 P F S T U

B B B b C C
F f F f T T
W O H H
B G R R R J
U V W X X

A B C D E F

G H I K L N

O P Q R S

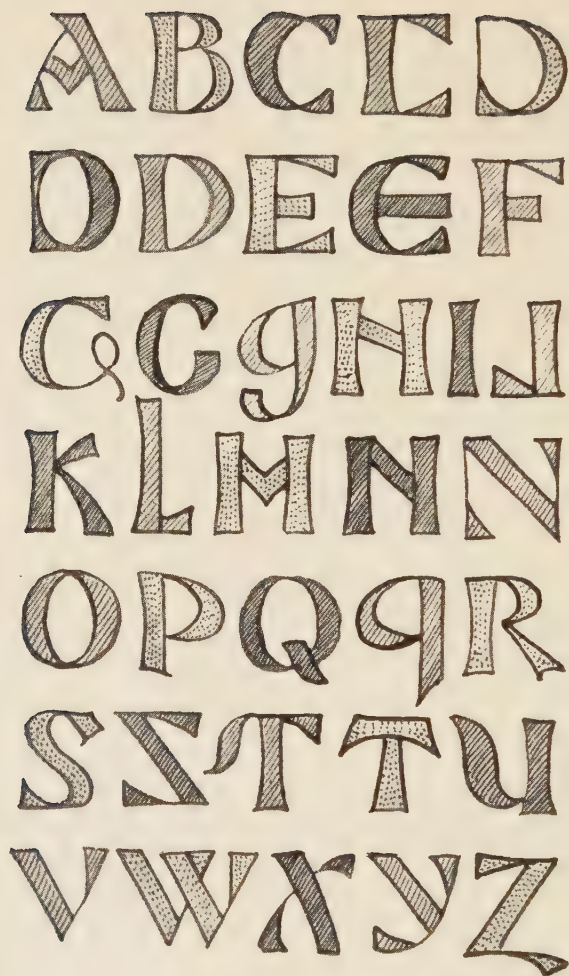
T U V X Y Z

A B C D E F G

H I K L M N

O P Q R S T

U V W X Y Z



64. SAXON AND ANGLO-SAXON MSS.
7TH, 8TH, AND 9TH CENTURIES.

A B C D E

F G H I J K

L M N O P

Q R S T U

V W X Y Z

65. MS. 10TH CENTURY.



66. FRENCH MS. 12TH CENTURY.

A A A A B B

C C C C D E

E F F G G H I

L M M N N O

P R S S S T

T U U V X Y

A A B B C
D E F G H
I J K L L
M M N O
P P Q R R
S T T U V
W X X Y Z

A B A B C
D E F F G H
I J K K L
M N O P Q
R S T T U
V W X Y Z



70. 12TH CENTURY. LISBJERG, DENMARK. GILT LETTERS ON
TRANSPARENT BROWN.

A B C D E
F G H I
J K L M N O
P Q R R S
T U V X Z

† A A B C D E F
 h i l o m n o
 p r s t s t v x x

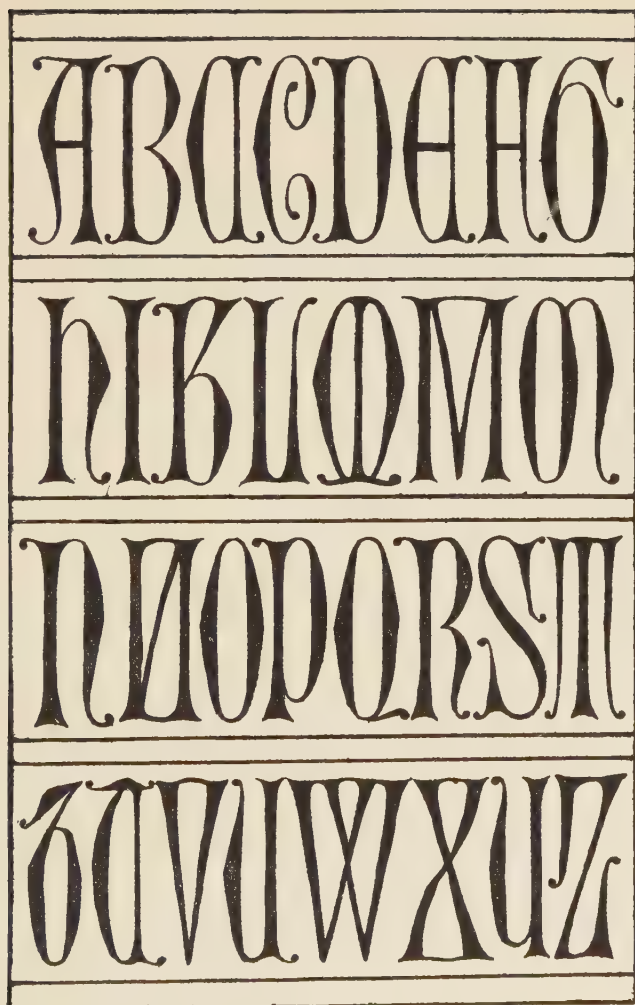
72. FROM A GERMAN BELL. 1270.

A B C D E
 F G H I K L
 M N O P Q
 R S T U V

73. FROM A PSALTER. 13TH CENTURY.

A B C D
E F G H
I K L M
N O P Q
R S T U
V X Y Z

A B C D E
F G H h
I J K L M
N O P
Q R S T U
V W X Y Z



76. INCISED GOTHIC CAPITALS. ABOUT 1350.

A B C D E F G H

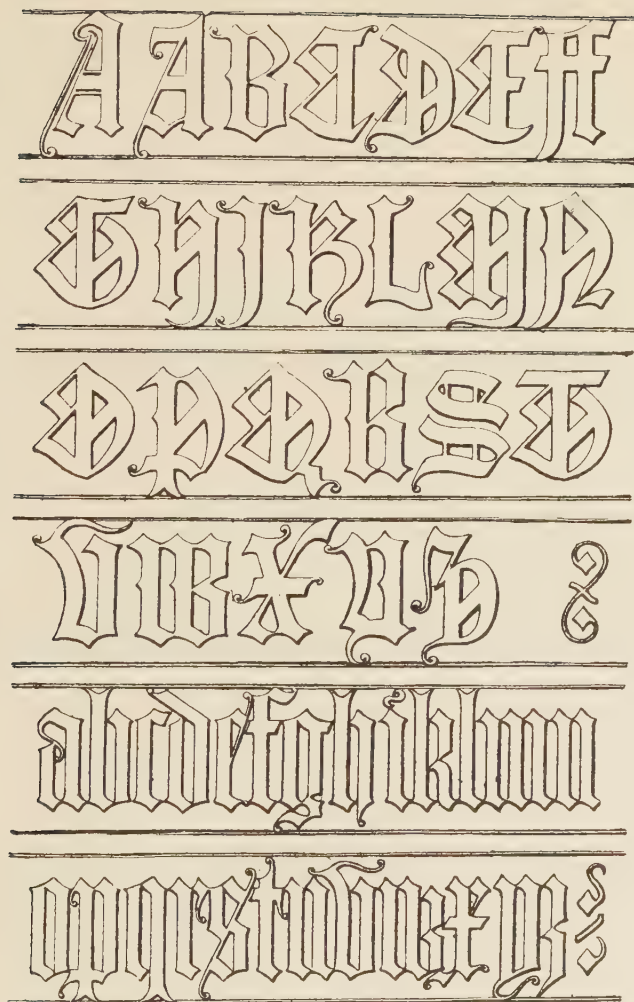
I K L M N O P Q

R S T U V W X

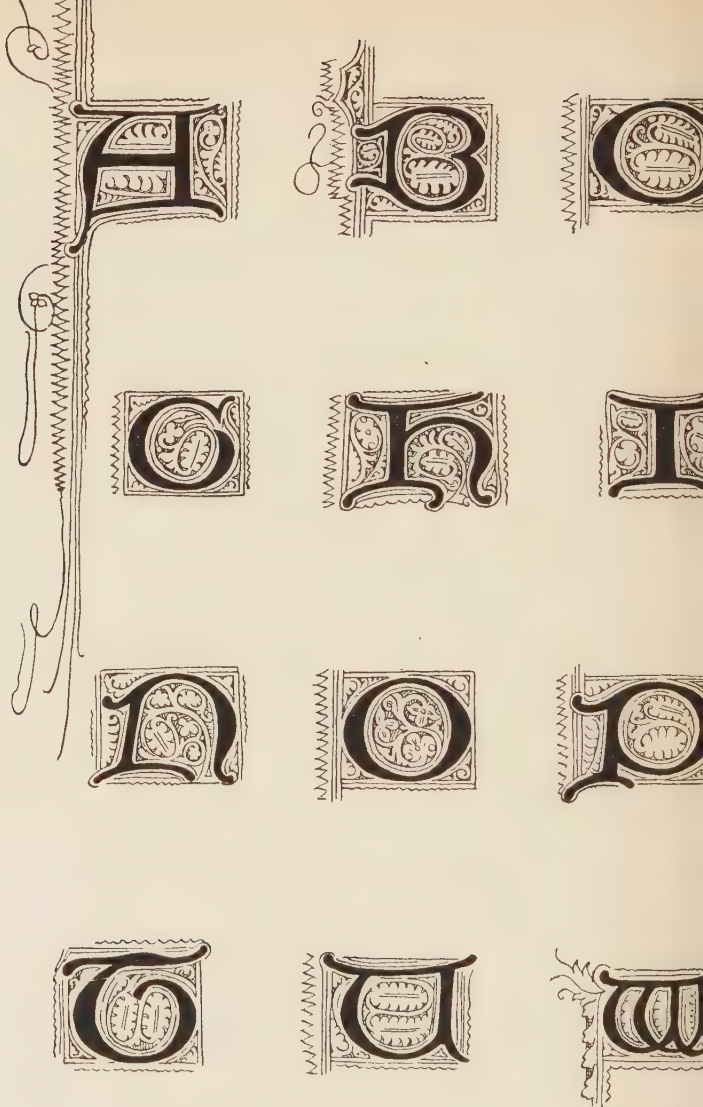
77. FROM A BRASS, NORDHAUSEN. 1397.

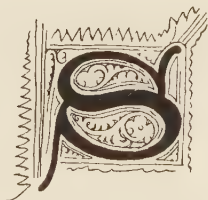
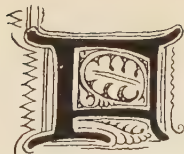


78. FROM A BRASS, NORDHAUSEN. 1395.



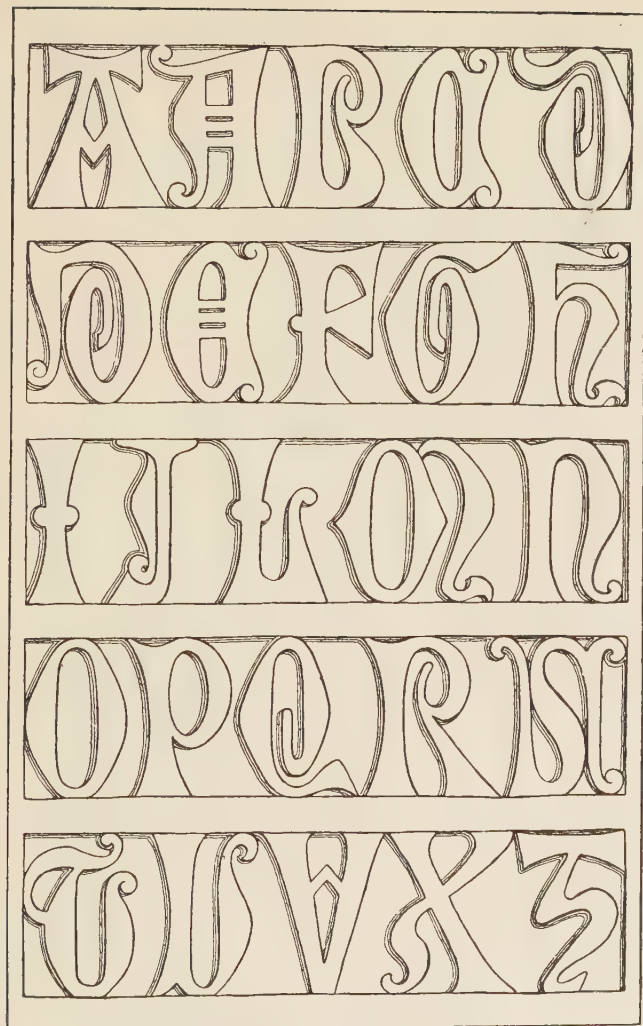
79. STONE. WESTMINSTER ABBEY. ABOUT 1400.





abcdefghijklmnop
· m n o p q r ·
stuvwx y z z z

81. INCISED AND FILLED WITH CEMENT. PRATO. 1410.



82. CARVED IN STONE. SPANISH.





A B C D E

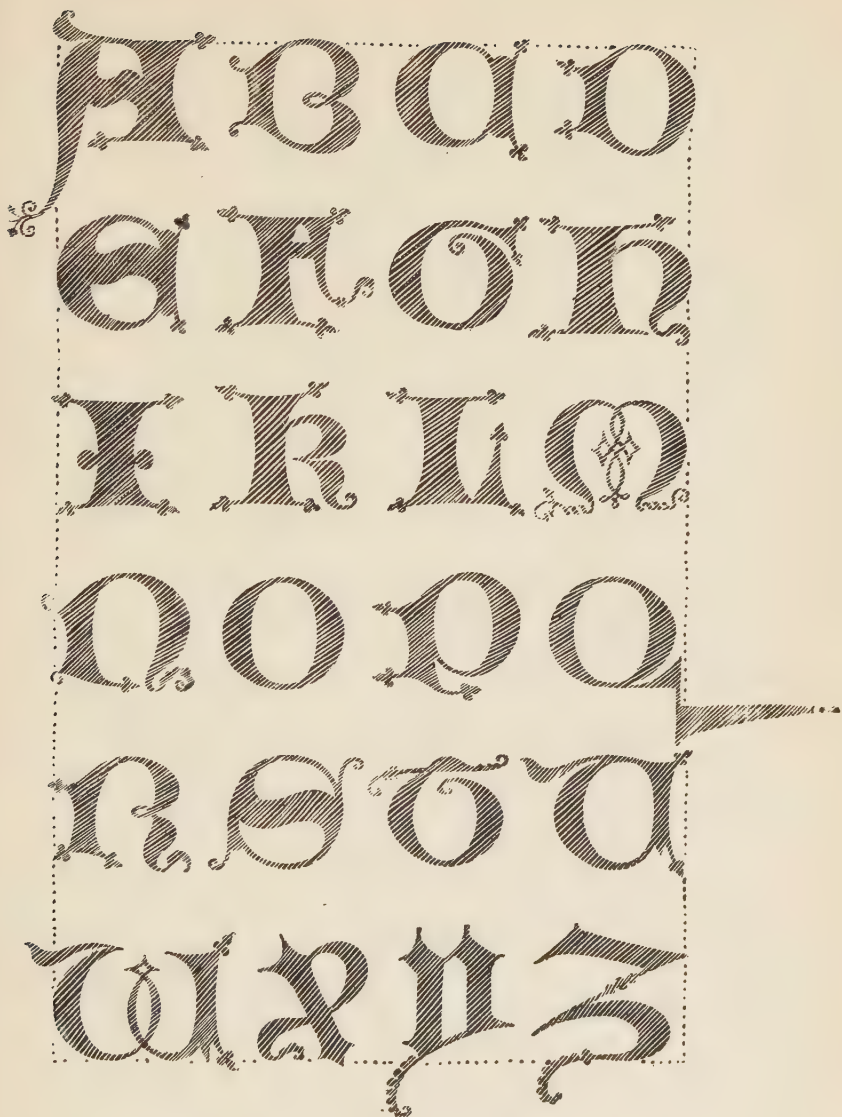
G H I J L M

N O P R S

T V W X

A B C D E
F G H I
J K L M N
O P Q R S T
U V W X Y Z

A B C D
E F G H I
J K L M
N O P Q R
S T U V
W X Y Z





A C O E

F G H L

I N O P

Q R S T V



91. CARVED IN RELIEF. FRENCH. PROBABLY 15TH CENTURY.

W E E

F G H I

L M N O

P Q R S

T U V X

a b c d e f
g h i k l m
n o p q r s
t v w x y z

a b c d e f
g h i k l m
n o p q r s t
u v w x y z

A B C D E F

G H I J K L M

N O P R S T

U V W X Y Z

a b c d e f g h i

k l m n o p q r

s t u v w x y z



96. PRINTED INITIALS. END OF 15TH CENTURY.

A B C D E F G
H I K L M N O
P R S T V W Z

97. FROM A BRASS. MEISSEN. 1500.

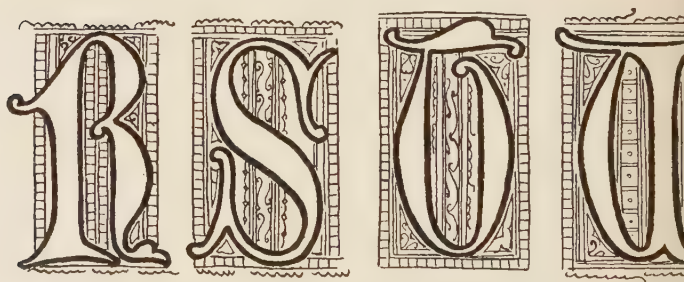
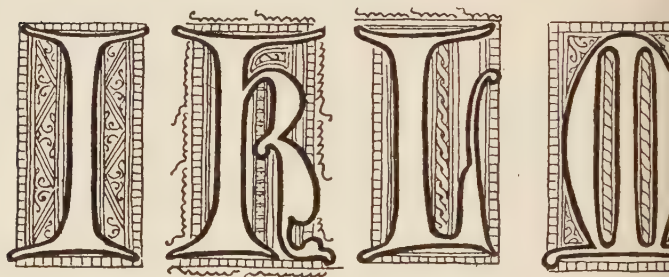
A B C D E F
G H I L M
N O P Q R
S T V X

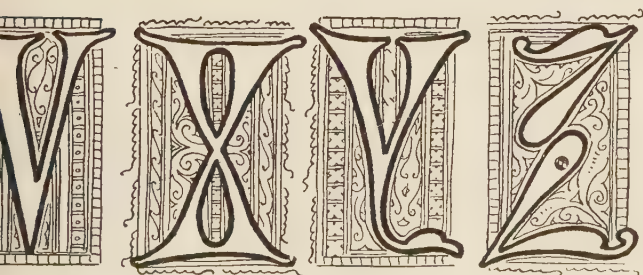
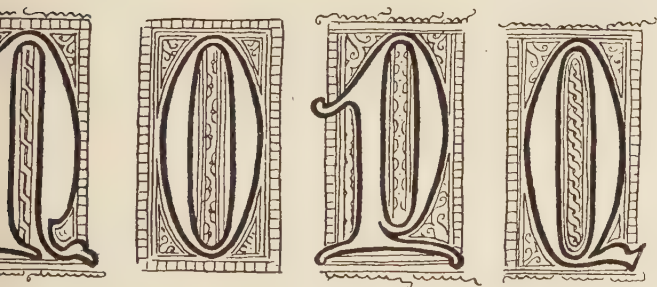
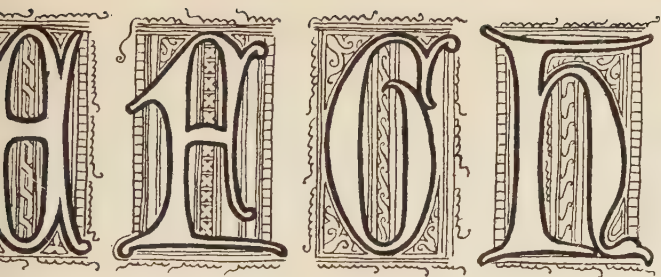
98. FROM BRONZE BY PETER VISCHER. 1495.

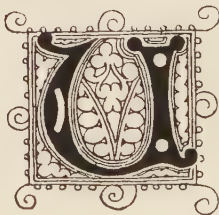
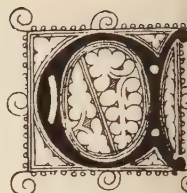
A B C D E
F G H I K L
M N O P
Q R S T
V X Y Z

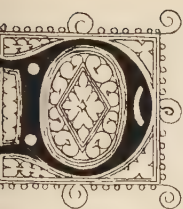
99. INCISED. ITALIAN RENAISSANCE. S. CROCE, FLORENCE.

H









TE CASINO. 16TH CENTURY.



A B C D E
F G H I J
K L M N O
P Q R S T
V W X Y Z

A B C D
E F G H
I K L M
N O P Q
R S T U
V X Y Z

a b c d e f
g h i j k l
m n o p q
r s t u v
w x y z

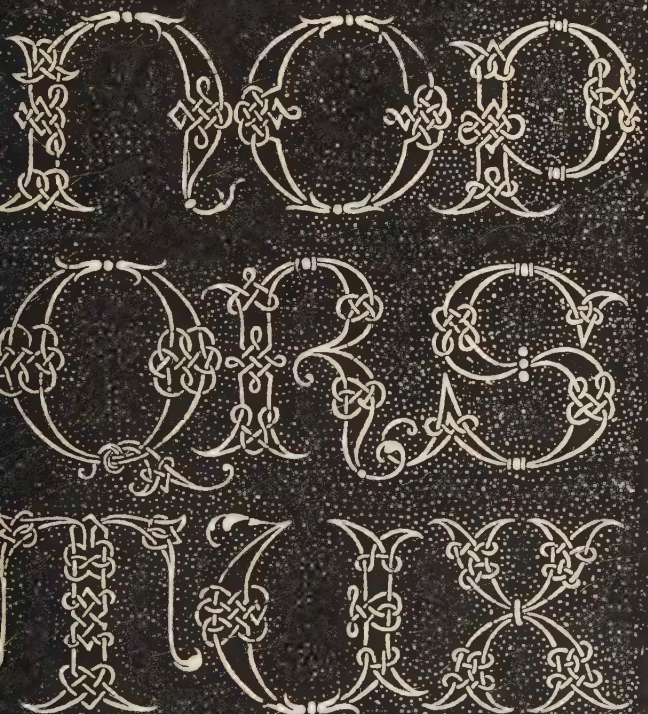
A B C D
 E F G H
 I K L M
 N O P Q
 R S T U
 V X Y Z

a b c d e
f g h i k
l m n o p
q r s t u v









Ind. Vincentius
Romae scribebat

A B C D E
F G H I J
K L M N
O P Q R
S T U V
W X Y Z

A B C D
 E F G H
 I K L M
 N O P Q
 R S T U
 V X Y Z

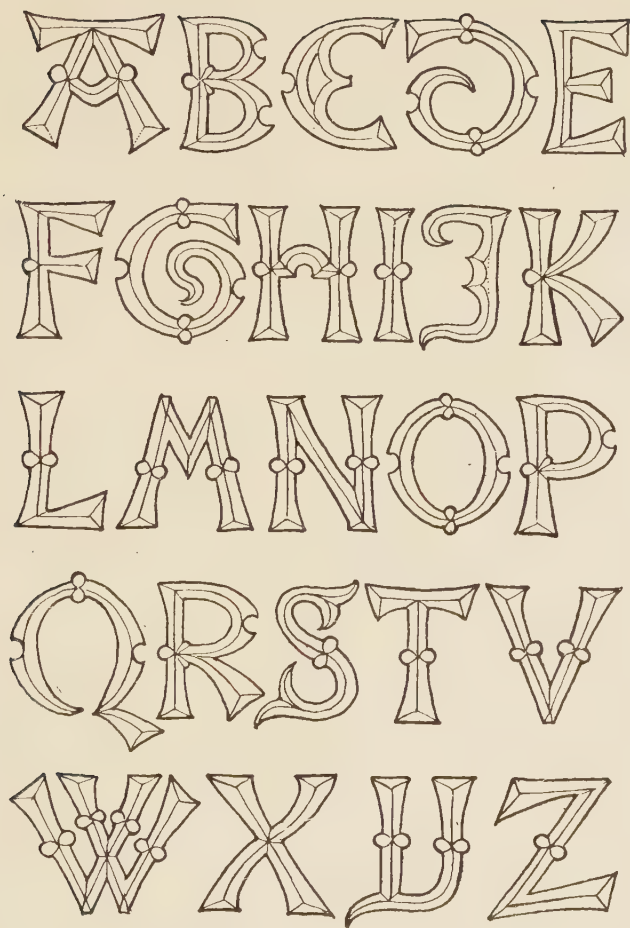
III SPANISH. JUAN YCIAR. FIRST HALF OF THE 16TH CENTURY.

ABCDEFGHIJ
KLMNOPQRS
TUVWXYZ

112. INCISED. FLORENTINE. 15TH CENTURY.

AAABBBCC
DDEFFGGH
IJKLMMN
NOPPOQR
RSTVXYZ

113. ENGRAVED BY HEINRICH ALDEGREVER. CA 1530.



114. INCISED IN WOOD. NORTH WALSHAM.



B C O D

G O R H

L M M N

O R R S

W X V Z

ABETHAN ALPHABET.



a b c d o
e f g h i k
l m n o p
q r s s
t u x y z

A B C

G H I

N O P

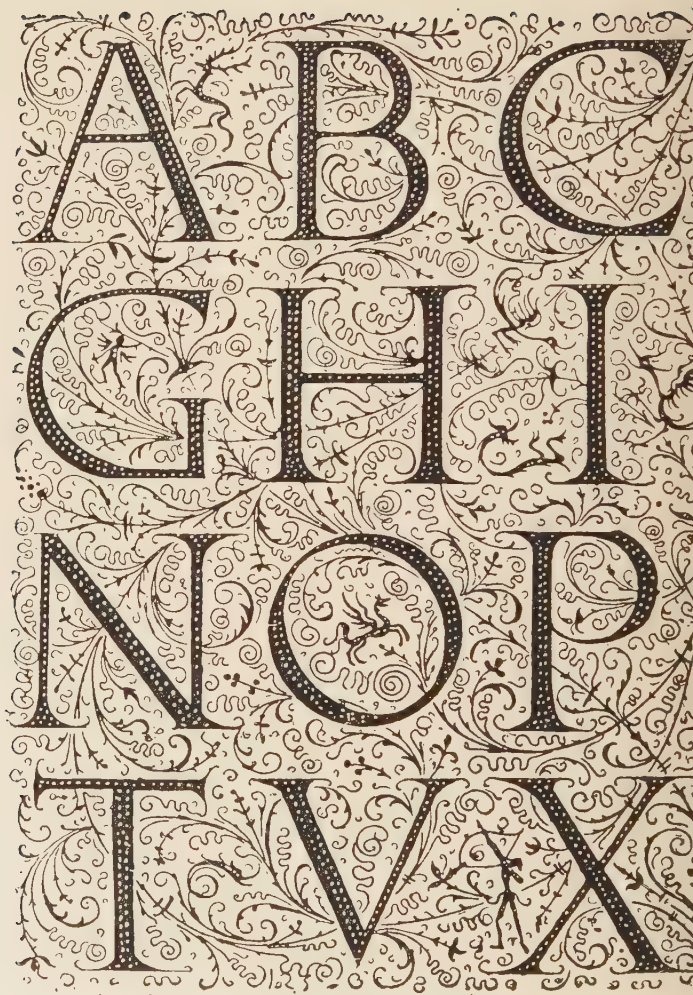
T V W

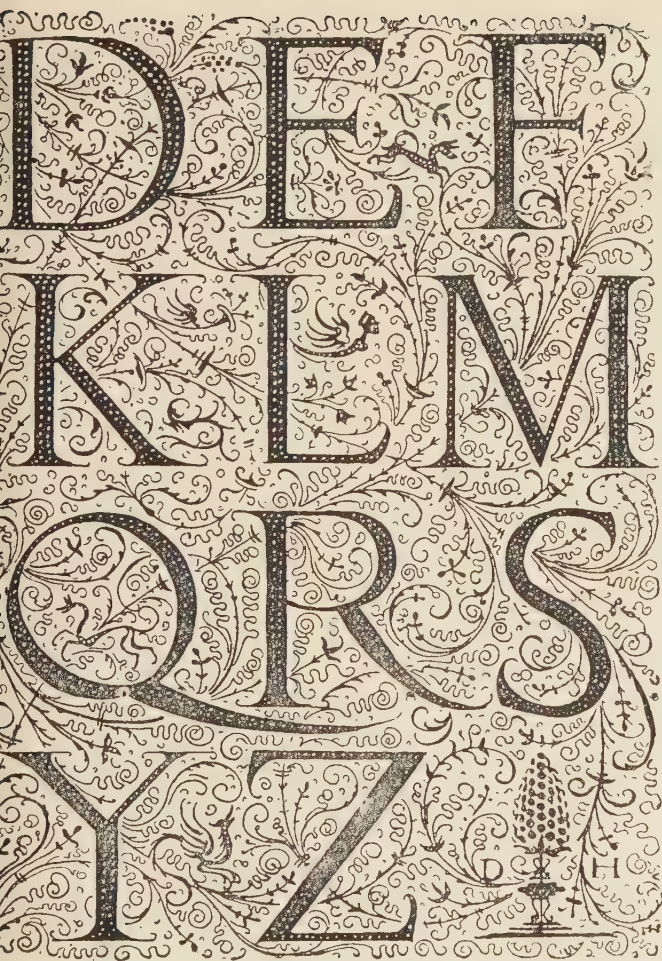
D E F

K L M

Q R S

X Y Z











A a b c
d e f g h
i l m ñ o
p q r s t
u x y z

A B C D
 E F G H
 I K L M
 N O P Q
 R S T U
 V X Y Z

a b c d e f g h i j
 k l m n o p q r
 s t u v w x y z

124. INCISED. FLEMISH. 1579.

a a b b b c c d e e e f f g g
 g h h i j k l m m n n o r
 z s t u v w x x y z

125. INCISED. STONE. FLEMISH. 16TH CENTURY.



126. FROM THE LACE-BOOK OF GIOVANNI OSTAVS. 1590.

A B C D E
F G H I J K L
M N O P Q
R S T U V
W X Y Z

127. STONE. BINGEN. 1576, 1598, 1618.

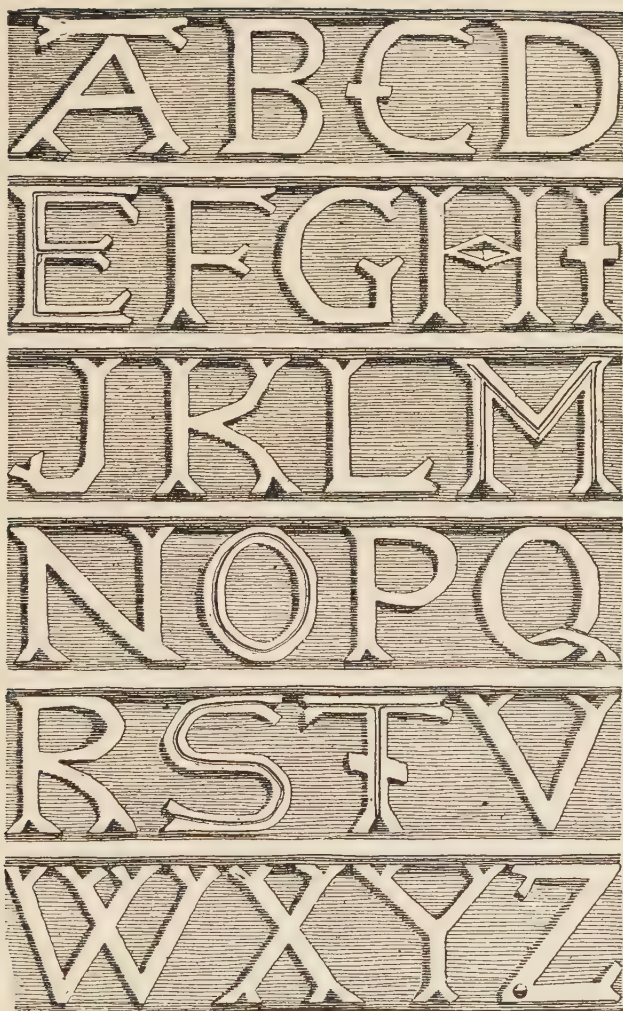
a b c d e
f g h i
t m n
o p q r
s t u y

a b c c c d e
f g h i j l m
m m n o p
p q r r r s t
s t u v x

A B C D
E F G H
I K L M
N O P Q
R S T U
W X Y Z

a b c d e
f g h i k l
m n o p q
r s t u x y
z & c t æ

A B C D
E F G H
I J K L M
N O P Q
R S T U V
W X Y Z



133. CARVED IN WOOD. 1638.

A A B C D
E F G H
I K L M N O
P Q R S T U
V W X Y Z
&



A a b c d e f
g h i k l m n o p q
r s t v u w x y z

135. PENMANSHIP. E. COCKER. 1660.

a b c d e f f g h i l l
m n o p q r r s s a t
v u x y z e s

136. PENMANSHIP. LESGRET. 1736.

Cocker. A B C D E F G

H I K L M N O

P Q R S T U V W X

Y Z



*et every day produce some curious Lines
That may commend thy Genius, & thy Pen.
Let all thy Undertakings and Designs
Tend to God's Glory, and the good of men.*

A b c d e f f f g h b i k l l l m n o p p
Q q r r s s s t t t t v u w x y y z &

A. B. C. D. E. F. G. H.

I. K. L. M. N. O. P. Q.

R. S. T. V. W. X. Y. Z.

A a b c d e f g h i k l l m n

o p q r s t t v u w x y z &

God Bless the Good Men

A A B C D E
F G H I K L M
N O P Q R S T V
W X Y Z

139. PENMANSHIP COCKER. 1673.

a b c d d e f g h i
j l m n o p q r s
s t u v x x y y z

140. PENMANSHIP. MAINGUENEAU. FRENCH.

A A B B C

C D E F F f G G

H I I I L L M

N N N N O P

Q Q R S T T

V V X Y Z &

Lesorel

A B C D E F G H

I K L M N O P Q

R S T U V W X Y

Z. & a b c d e f g

h i j k l m n o p q r s t u v

x y z A^e D^m 1665.

A B C D E F G
H I J K L M N O
P Q R R R
S T V W X Y Z
a b c d e f g h i j k l m n
o p q r s t v w x y z.
Anno Domini 1697

143. INCISED. CHIPPENHAM. 1697.

a b c d e
f g h i j k
l m n o
p q r s t u
v w x y z,

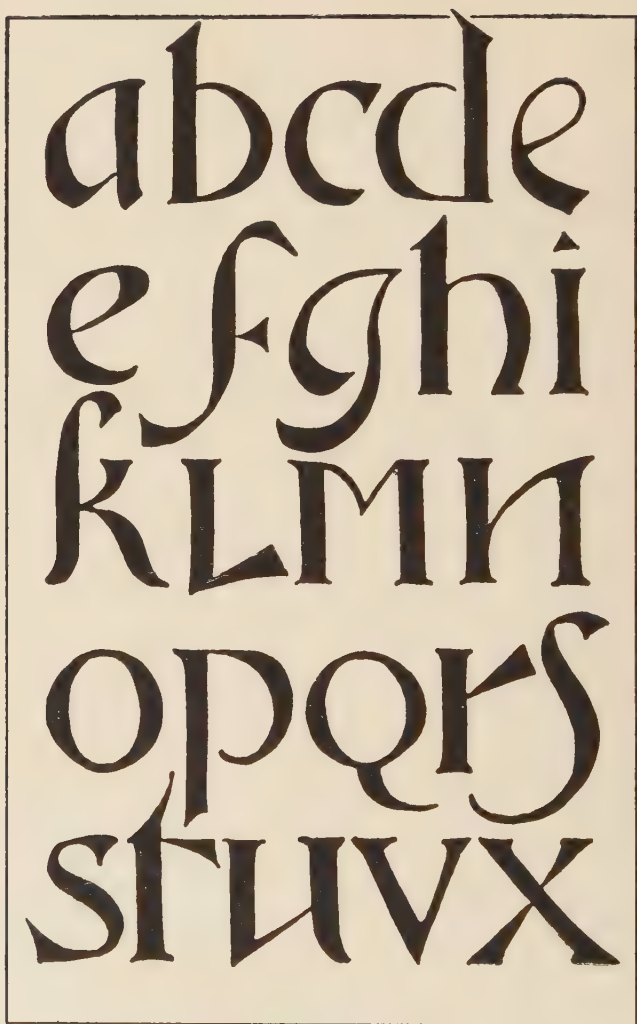
abcdefghijklmnopqrstuvwxyz.

A a b c d e f g h i l m n o p
 q r s t u x z A a b c d
 e f g h i l m n o p q r s t u x z
 A a b b c c d d e e f f g
 g h i j k l m n o p p
 q q r r s s t t u u v x x z z

A A B B C C
D D E F G G
H H I I L L M
N N O P
Q R R S S T
T T V X Z R R
a b c d d e e æ f g h i j y
l m n o p p q r r s t u v
v x z z

A B C D E
F G H I J K
L M N O
P Q R S T U
V W X Y Z

A B C D E F
G H I J K
L M N O P Q
R R S T U
V W X Y Y



150. STONE. OSNABRÜCK. 1742-56.



151. FRENCH. E. GUICHARD. PERIOD OF LOUIS XV,





MOD OF LOUIS XV.

abcedefghi
jklmnopqr
stuvwxyz

153. ETCHED ON LITHOGRAPHIC STONE. NUREMBERG.

1765-70.

a b c d e
e f g g h i
j l m n o p
q r s t f
u v v x z

A B C D E F G

H I J K L M N

O P Q R S T U

V W X Y Z &

I 2 3 4 5

6 7 8 9 0

abcdefghijklmnopqrstuvwxyz

abcdefghijklmnopqrstuvwxyz

abcdefghijklmnopqrstuvwxyz

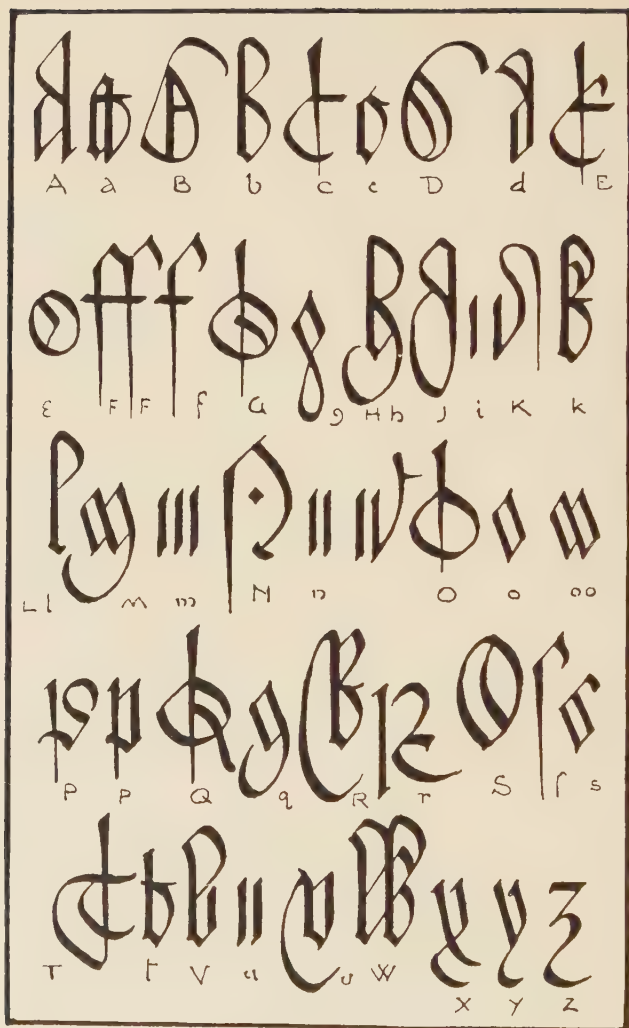
abcdefghijklmnopqrstuvwxyz

abcdefghijklmnopqrstuvwxyz

abcdefghijklmnopqrstuvwxyz

abcdefghijklmnopqrstuvwxyz

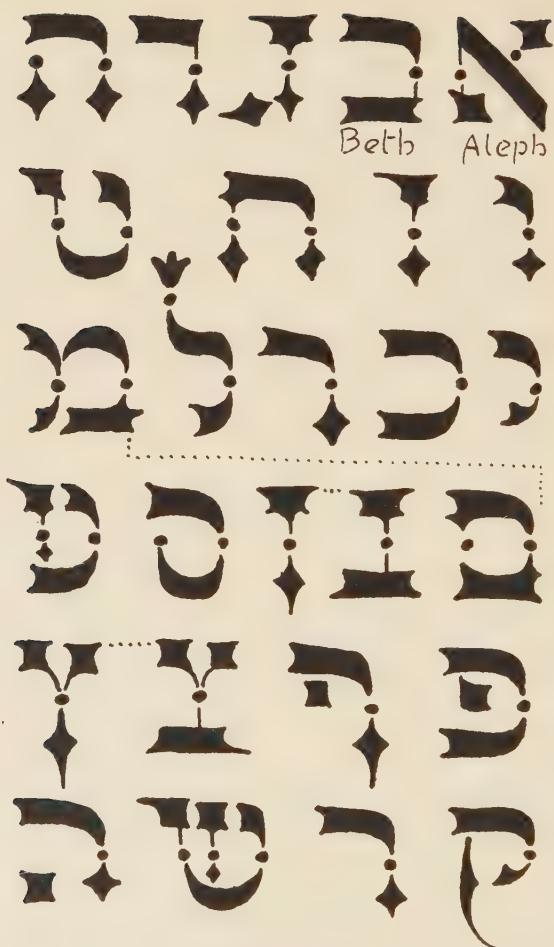
abcdefghijklmnopqrstuvwxyz



157. ENGLISH COURTHAND. FROM A. WRIGHT'S "COURTHAND RESTORED." 1815.



158. HEBREW ALPHABET.



159. HEBREW ALPHABET. FROM SILVESTRE'S PALEOGRAPHIE.

MODERN ALPHABETS
SHOWING THE CHARACTER WHICH
COMES OF USING PEN, CHISEL, OR
WHATEVER IT MAY BE

A B C
G H I
D O P
T U V

D E F
K L M
O R S
X Y Z

WALTER CRANE.

A B C D
E F G H I J
K L M N O
P Q R S T
U V W X Y Z

a b c d e
f g h i j k
l m n o p
q r s t u v
w x y
z





OTTO HUPP.



A A A A

B C D O E E

F H I K  K

L N O P Q R

S I S T U

V W X Y Z

a b c d e
f g h i j k
l m n o p
q r s t u v
w x y z

A B C D

E F G H I J

K L M N

O P Q R S

T U V W

X Y Z

A B C D E F
G H I J K L
M N O P Q
R S T U V
W X Y Z &

a b c d e f g h i j
k l m n o p q r
s t u v w x y z

A B C D E
F G H I K
L M N O P
Q R S T U
V W X Y Z

A B C D E F G
H I J K L M M N
N O P Q Q R R
S T V W X Y Z

a b c d e f g h i j k l m n
o p q r s t u v w x y z.

1 2 3 4 5 6 7 8 9 0.

A B C D E F G
H I J K L M N
O P Q R S T V
W X Y Z
1 2 3 4 5
6 7 8 9 0

170. PENWORK. BAILEY SCOTT MURPHY, ARCHITECT.

N

A B C D E
F G H I K L
M N O P Q
R S T V W
X Y Z &
1905

ABCD EFGH
IJK LMN OPP
QQRR SS TT
1 UV WX YZ
2234567889o

A.D.

M D C C C C V

E.R.I. • F.D.

a b c c d e f f
 g h i j k l m n o p
 q r s s t u v w x
 y z. 1 2 3 Design letters
 4 5 into words.
 6 7 8 9 0



A B C D E F G
H I J K L M N O
P Q R S R S
T V W X Y Z Z
AN ARCHITECT'S
LINE ALPHABET
FOR PENWORK.



A B C D E
F G H I J K
L M N O P
Q R S T U
V W X Y Z

abcdefghijklmnopqrstuvwxyz
abcdefghijklmnopqrstuvwxyz

A B C D E F G
H I J K L M N
O P Q R S T U
V W X Y Z &
a b c d e f g h i j k
l m n o p q r s t u
v w x y z & .\$.
1 2 3 4 5 6 7 8 9 0

A B C D E F
G H I J K L M
N O P Q R S T
U V W X Y Z

177. PEN-DRAWN "ROMAN" CAPITALS. B. WALDRAM.

A B C D E F G
H I J K L M N
O P Q R S T U
V W X Y Z &

178. PRINTED "ROMAN" TYPE. MODERN FRENCH.

A B C D E F
G H I J K L O
N O P Q R S T
U V W X Y Z

179. PEN-WRITTEN UNCIALS. B. WALDRAM.

a b c d e f g h i j
k l m n o p q r s
t u v w x y z

180. PEN WRITTEN. L.F.D.

A B C D E F G H I
J K L M N O P Q R
S T U V W X Y Z
a b c d e f g h i j k l
m n o p q r s t u v
w x y z.

Roland W. Paul

181. PENWORK. ROLAND W. PAUL, ARCHITECT.

A B C D E F G H I J
K L M N O P Q R
S T U V W X Y Z

182. PENWORK. R. K. COWTAN.

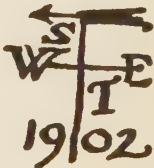
A B C D E F
G H I J K L M
N O P Q R S T
U V W X Y Z

183. PENWORK. R. K. COWTAN.

A B C D E F G
H I J K L M N
O P Q R S T
U V W X Y Z

184. PENWORK. R. K. COWTAN.

A B C D E
F G H I J
K L M N
O P Q R
S T U V W
X Y Z



abcdefghijklmnopqrstuvwxyz

Of course the first question is that of material; and care must be taken to choose or design an alphabet, not only practicable in, but suitable to, the medium in which it is to be executed. One of the commonest errors is that of taking a style of lettering excellent when written on parchment or paper, with a quill pen, and carving it, let us say for example, on wood. Of course the result is often, although by no means necessarily so, incongruous in the extreme. Many letter-forms are, indeed, interchangeable in this way: but if it is desired to adapt the lettering of one class of object to the purposes of

A B C D E F G H I J
K L M N O P Q R
S T U V W X Y Z

187. DESIGNED FOR ENGRAVING ON METAL; BUT NOT
UNSUITED TO PENWORK. L.F.D.

A B C D E F G H I J
K L M N O P Q R
S T U V W X Y Z

188. PEN WRITTEN. L.F.D.

A B C D E F G
H I J K L M N
O P Q R S T U
V W X Y Z &

a b c d e f g h i j k l
m n o p q r s t u v
w x y z

1 2 3 4 5 . 6 7 8 9 0

A B C D E F G H I J
 K L M N O P Q R
 S T U V W X Y Z

190. ENGRAVING. ADAPTED FROM MEDIÆVAL GOLDSMITH'S WORK.
 L.F.D.

A B C D E F
 G H I J K L M N
 O P Q R S T
 U V W X Y Z

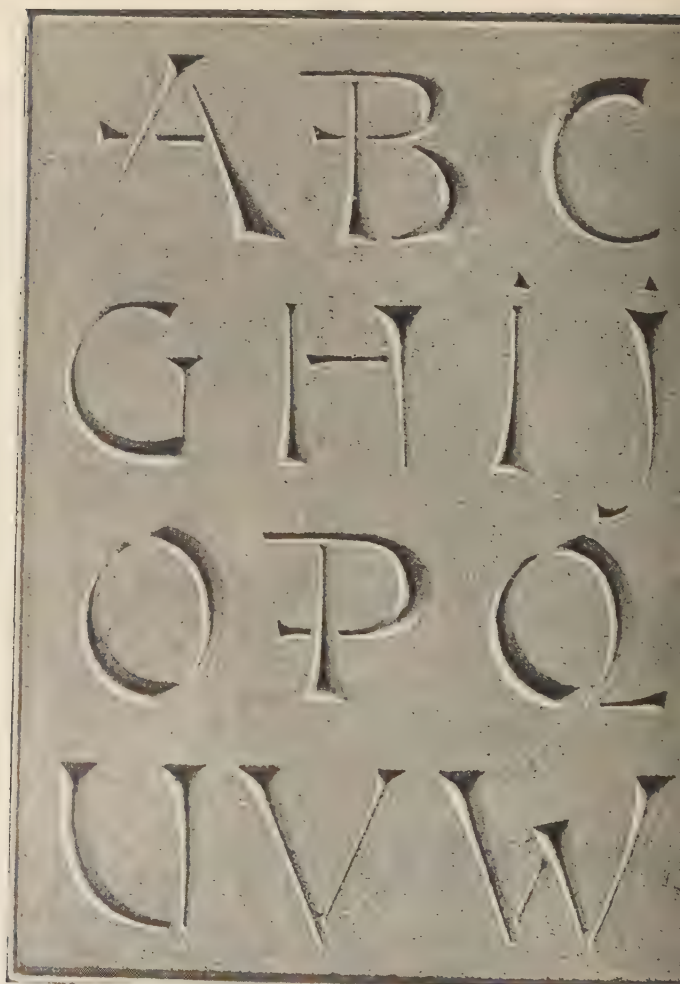
191. L.F.D.

A B C D E F G
H I J K L M N
O P Q R S T
U V W X Y Z

192. L.F.D.

A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z

193. SCRATCHING. ADAPTED FROM OLD SPANISH. L.F.D.



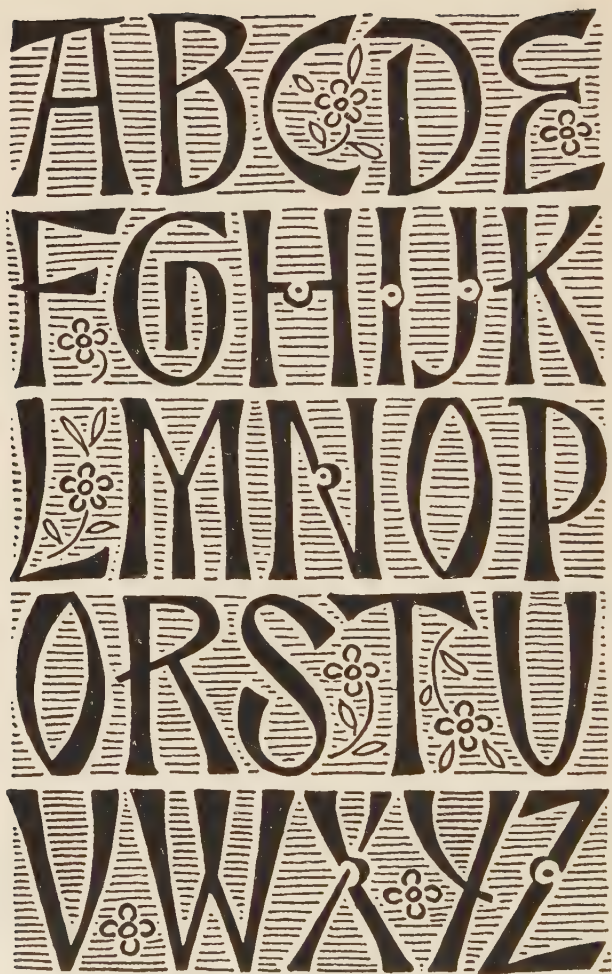
194. INCISED, ALFRED



CARPENTER AND L.F.D.







196. ENGRAVING ON SILVER. L.F.D.



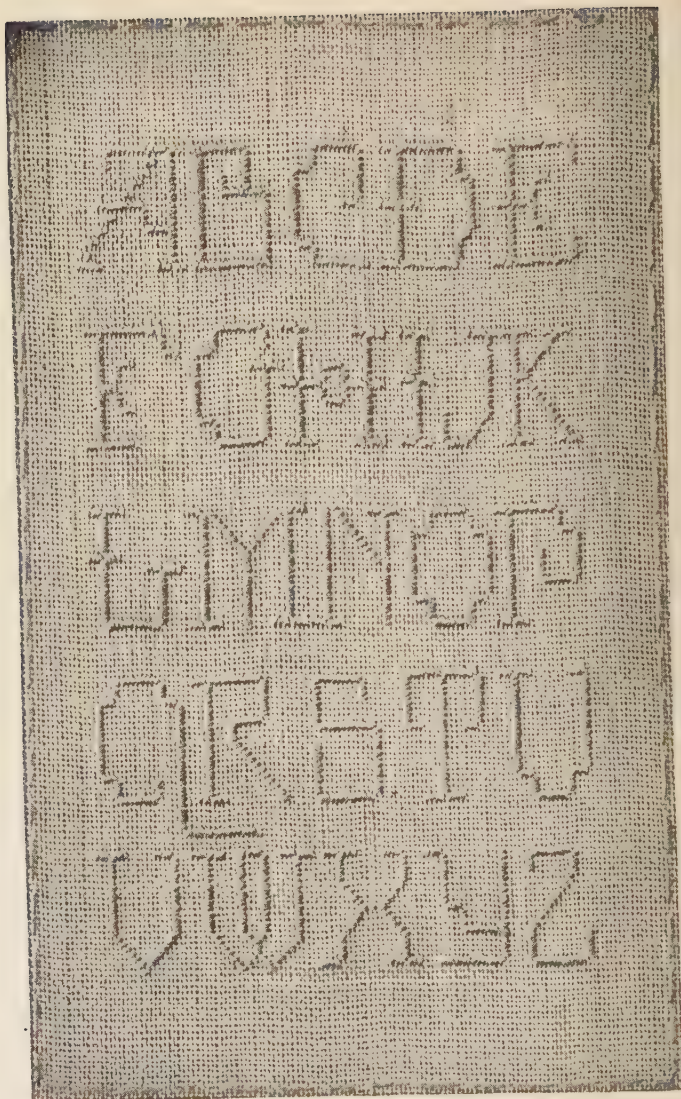
197. ENGRAVING ON BRASS. ADAPTED FROM OTTO HUPP.



198. EMBROIDERED IN COUCHED CORD. L.F.D.



199. BEATEN METAL. L.F.D.



A B C D E F G

H I J K L M N

O P Q R S T

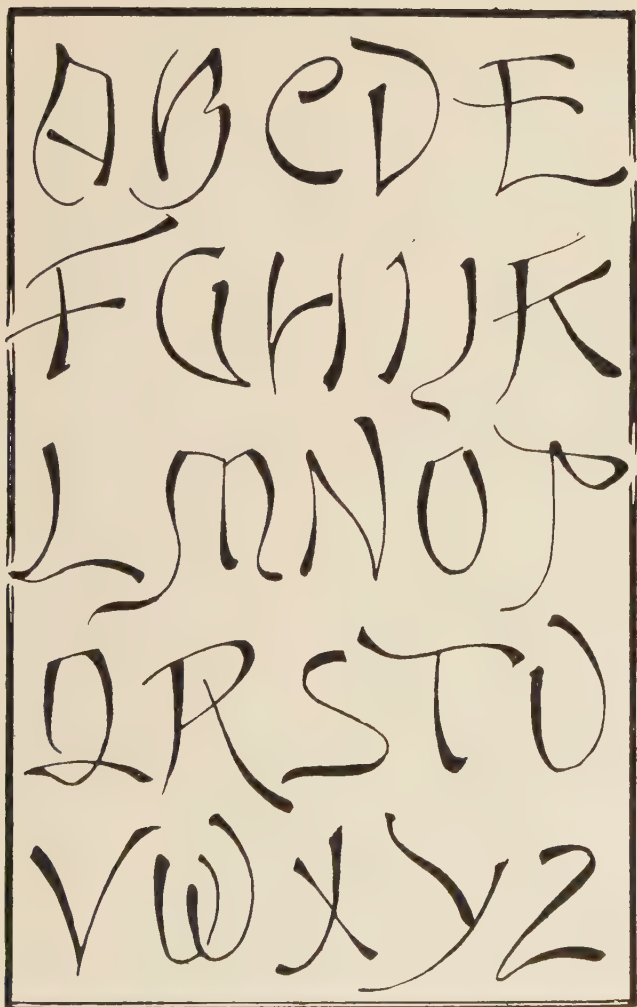
U V W X Y Z

a b c d e f g h i j k l m

n o p q r s t u v w x y z



202. SQUARE-CUT. QUASI-CHINESE. L.F.D.



203. BRUSHWORK. QUASI-JAPANESE. L.F.D.

A B C D E F G H I

K L M N O P Q R

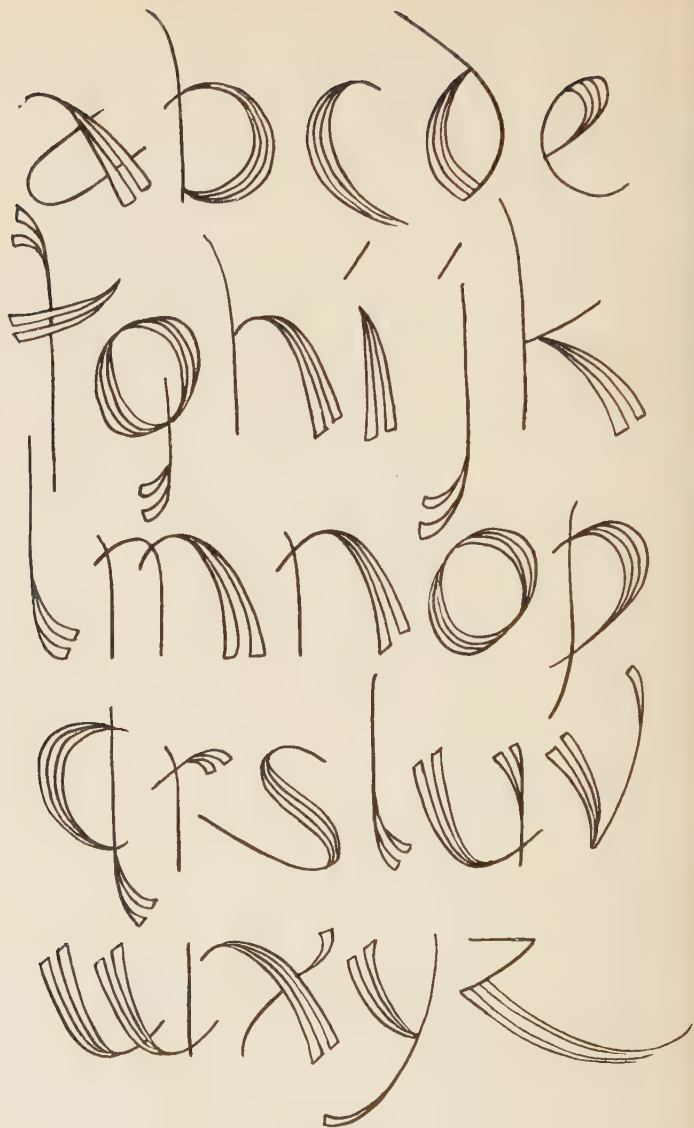
S T U V W X Y Z

a b c d e f g h i j

k l m n o p q r s t

u v w x y z ? !

A B C D E
F G H I J K
L M N O P
Q R S T U
V W X Y Z
a b c d e f g h i j k l m n
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IN WHICH THE INFLUENCE OF
THE IMPLEMENT EMPLOYED IS
NOT SO EVIDENT

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RSTUV,
WXYZ[®]

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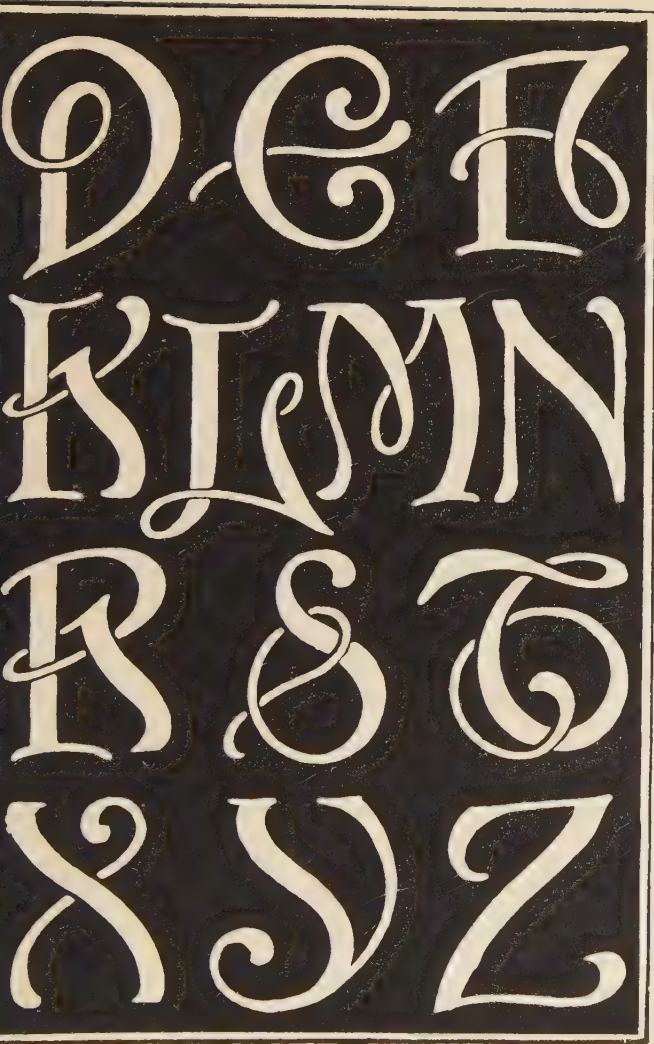
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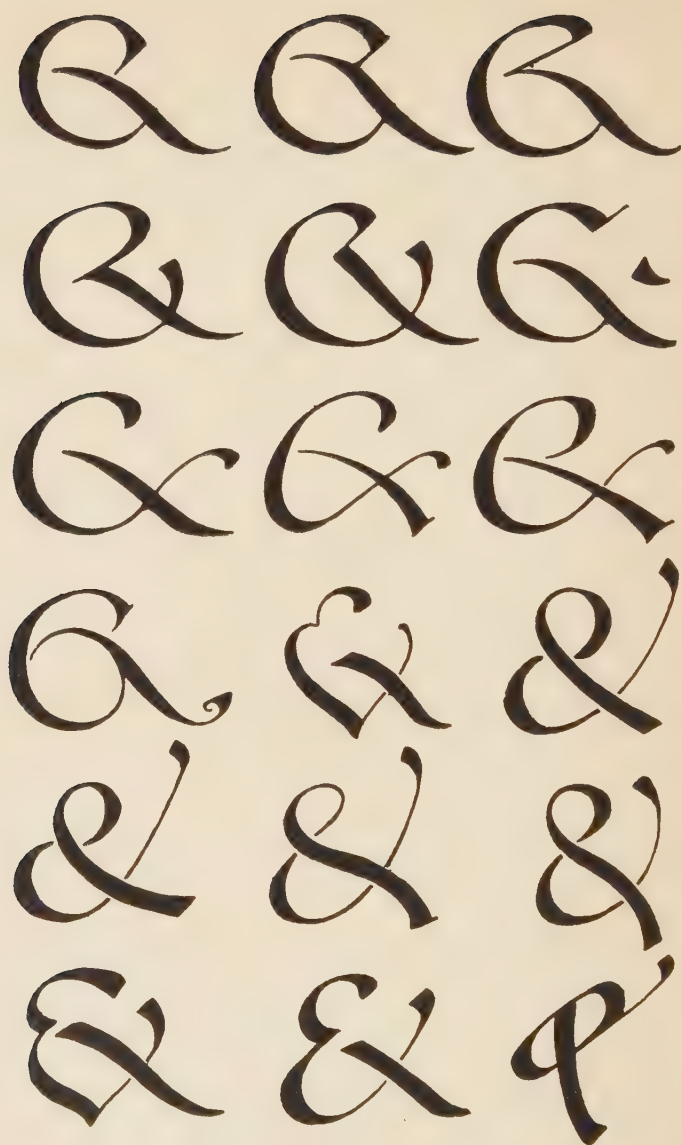
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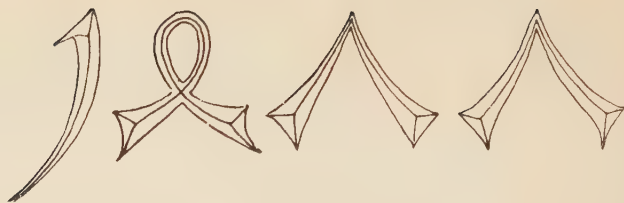
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AMPERZANDS AND
NUMERALS



225. AMPERZANDS. 7TH TO 15TH CENTURIES.

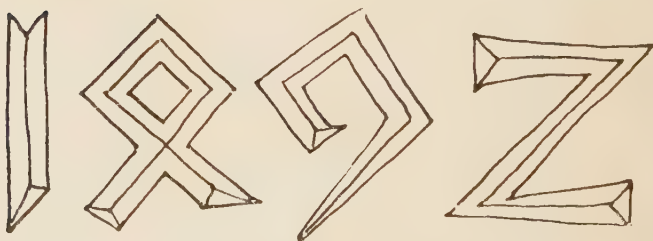
e ee E
 g ge G
 G G G
 h hh H
 I I I
 k k K
 l ll L



227. CUT IN STONE. 1477.



228. STONE AND BRASS. 1439-1491.



229. CUT IN STONE. 1492.

1. 5. 2. 0. 1522
 1520 1522
 1521 1522
 1531 1542
 1531 1543
 1533 1543 1544
 1539 1545

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

1 2 3 4 5

67890

67890

67890

67890

1 2 3 4 5
6 7 8 9 0

232. BRONZE. ABOUT 1550.

1 2 3 4 5
6 7 8 9 0

233. BRONZE. ABOUT 1560.

1 2 3 4 5

6 7 8 9 0

234. BRUSHWORK. FAIENCE. 16TH CENTURY.

1 2 3 4 5

6 7 8 9 0

235. BRUSHWORK. 16TH OR 17TH CENTURY.

R

1 2 3 4 5
6 7 8 9 0

236. ITALIAN MS. 16TH CENTURY.

1 2 3 4 5
6 7 8 9 0

237. BRUSHWORK. GILT, ON BLACK. 1548?

1 2 3 4 5
6 7 8 9 0

238. INCISED IN WOOD. GERMAN. 1588.

1 2 3 4 5
6 7 8 9 0

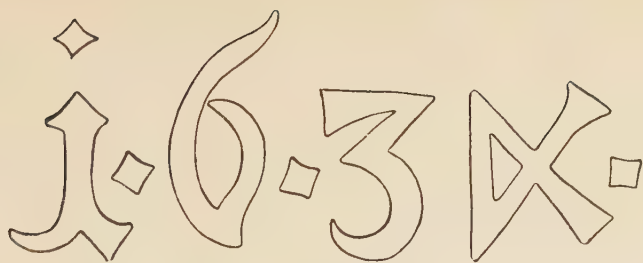
239. BRASS. 16TH CENTURY

1 2 3 4 5
6 7 8 9 0

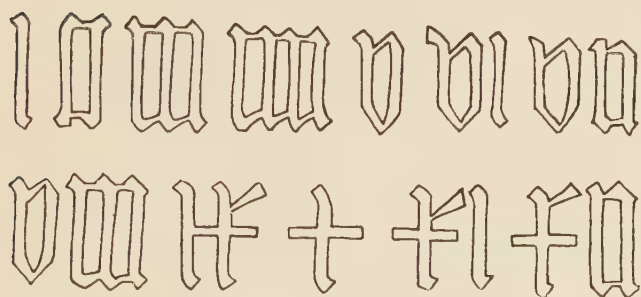
240. BRUSHWORK. 16TH CENTURY.

1 2 3 4 5
6 7 8 9 0

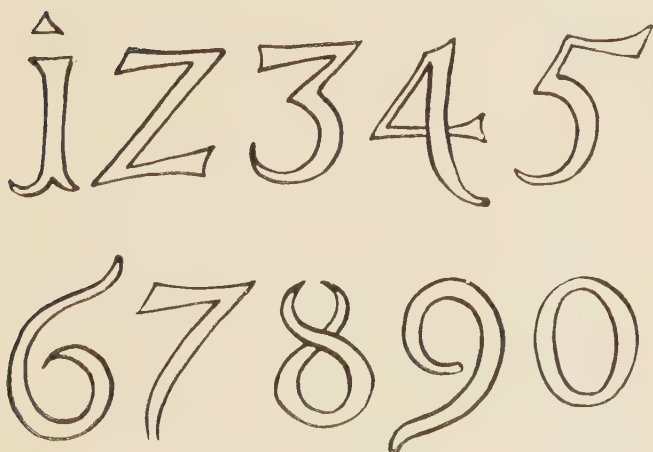
241. ABOUT 1700.



242. CUT IN STONE. 1634.



243. RELIEF IN BRASS OR BRONZE. 1647.



244. STONE. 1692.

156355 J623

1584 J625

j63iZ J625

J633 J679

J697 1699

1707 368

J 1 2 3 3 4

5 6 7 8 9

j 7 Z 6 4 8

J 7 3 2 · 5

j 7 4 4 · 9

1716·294 ð719

ð7Zð j723

1724 J725

J735·Z j738

J755·486 J763

1774·695 J783

1 2 3 4 5 6 7 8
 9 10 11 12 13 14 15

248. BRASS WIRE INLAY ON WOOD. 1740.

1573 1593
 1649 1747

249. ENGRAVED ON STEEL, OR INLAID IN WIRE ON WOOD.

1573—1747.

1 2 3 4 5
 6 7 8 9 10

250. L.F.D.

1 2 3 4 5
6 7 8 9 0

251. MODERN.

1 2 3 4 5
6 7 8 9 0

252. L.F.D.

1 2 3 4 5 6 7

8 9 10 11 12

253. ALÖIS MÜLLER.

1 2 3 4 5

6 7 8 9 0

254. L.F.D.

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ARRANGED UNDER ARTISTS, COUNTRIES, MATERIALS & PROCESSES, AND STYLES

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